

APPENDIX B



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QUALITY ASSURANCE PROJECT PLAN FOR INVESTIGATION OF PFAS IN GROUNDWATER

ROLLING KNOLLS LANDFILL SUPERFUND SITE

CHATHAM, NEW JERSEY

Prepared for

Rolling Knolls Landfill Settling Parties

Prepared by

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Project Number JR0149A

January 2023

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QAPP WORKSHEET #1 & 2: TITLE AND APPROVAL PAGE

**QUALITY ASSURANCE PROJECT PLAN
FOR GROUNDWATER SAMPLING AND ANALYSIS**

Rolling Knolls Landfill Superfund Site
Chatham, New Jersey

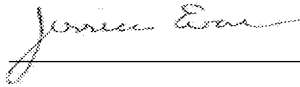
Review Signatures:



John Persico, P.G. / Date: __10/14/2022_____
Project Manager – Geosyntec



Christine Julias / Date: __10/14/2022_____
Task Manager – Geosyntec



Jessica Evans / Date: __10/14/2022_____
Project Quality Assurance Manager – Geosyntec

Approval Signatures:

Rupika Ketu / Date: _____
Remedial Project Manager – USEPA Region 2

Jennifer Feranda
Quality Assurance Manager – USEPA Region 2

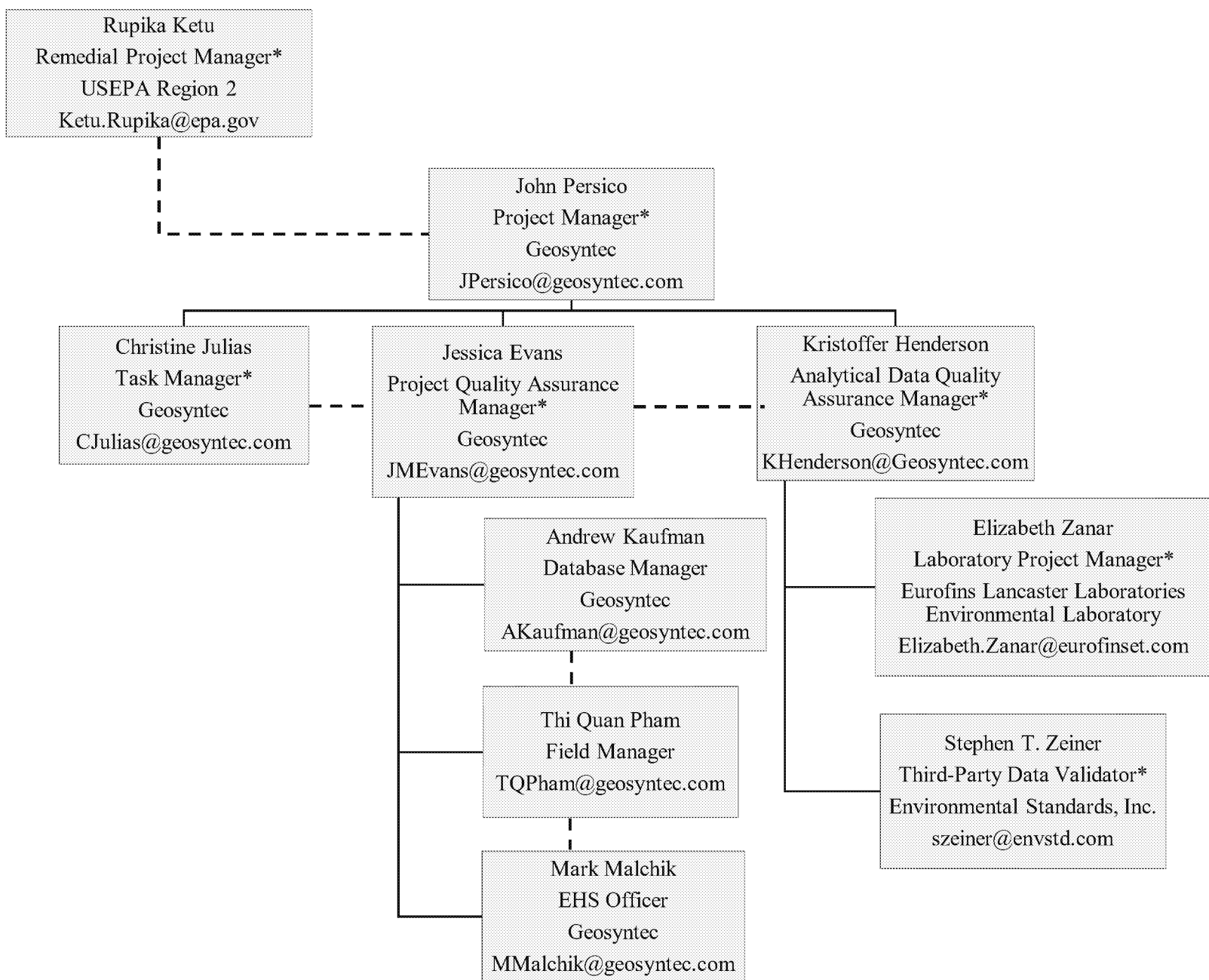
Plans and Reports from Previous Investigations:

Geosyntec. 2022. Technical Report *PFAS Results for Groundwater Samples*. June

Geosyntec. 2018. *Remedial Investigation Report*. January.

Geosyntec. 2017. *Supplemental Groundwater and Baseline Monitored Natural Attenuation Investigation Report*.
August.

QAPP WORKSHEET #3 AND 5: PROJECT ORGANIZATION AND QAPP DISTRIBUTION



*: QAPP recipient

_____ : Lines of Authority

- - - - - : Lines of Communication

QAPP WORKSHEET #4, 7, & 8: PERSONNEL QUALIFICATIONS AND SIGN-OFF SHEET

Name	Project Title/Role	Education/Experience	Specialized Training/Certification	Signature*	Date QAPP Read
John Persico	Geosyntec/Project Manager	M.S. Geology, P.G.	Licensed Professional Geologist		
Christine Julias	Geosyntec/Task Manager	B.S. Chemical Engineering, M.B.A Marketing Management, P.E.	Certified Professional Engineer		
Jessica Evans	Project QA Manager	M.S. Biology	40-Hour HAZWOPER Training 8-Hour HAZWOPER Refresher SOP #112 training and field experience		
Kristoffer Henderson	Analytical Data QA Manager	B.S. Chemistry Masters in Managerial Accounting and Finance	Certified Quality Technician from American Society for Quality ISO/IEC 17025 Lead Assessor Training		
Mark Malchik	Health and Safety Manager	M.S. Public Health	Certified Industrial Hygienist, Certified Safety Professional		
Thi Quan Pham	Field Manager	M.S. Earth & Environmental Science	40-Hour HAZWOPER Training 8-Hour HAZWOPER Refresher SOP #112 field experience		
Field Personnel	Sample Collection		40-Hour HAZWOPER Training 8-Hour HAZWOPER Refresher All personnel performing PFAS sampling at the Site will be trained on SOP #112 and have field experience in its use		

QAPP WORKSHEET #4, 7, & 8: PERSONNEL QUALIFICATIONS AND SIGN-OFF SHEET (CONTINUED)

Environmental Standards, Inc.

Name	Project Title/Role	Education/Experience	Specialized Training/Certification	Signature*	Date QAPP Read
Stephen T. Zeiner	Data Validation Manager	B.S. Chemistry	Certified Environmental Analytical Chemist		

Eurofins Lancaster Laboratories Environmental

Name	Project Title/Role	Education/Experience	Specialized Training/Certification	Signature*	Date QAPP Read
Elizabeth Zanar	Laboratory Project Manager	B.S. Biology/Biological Sciences			

* Signature indicates personnel have read applicable QAPP sections and will perform the work as indicated herein.

Note: Additional sheets will be signed by Geosyntec field scientists and field technicians, and these signatures will be maintained in the project file.

QAPP WORKSHEET #6: COMMUNICATION PATHWAYS

Communication Drivers	Responsible Affiliation	Role	Contact Information	Procedure
Approval of Amendments to QAPP	Geosyntec	Project Manager	John Persico JPersico@geosyntec.com 609-493-9008	Obtain initial approval from Project Manager. Submit documented amendments within 10 working days for transmittal to the USEPA Remedial Project Manager (RPM) for approval.
Approval of activities deviating from QAPP	Geosyntec	Project Manager Project QA Manager	John Persico JPersico@geosyntec.com 609-493-9008 Jessica Evans jmevans@geosyntec.com 609-379-9685	Obtain initial approval from Project Manager and will be reviewed by the Project QA Manager. Submit request for deviation within 10 working days for transmittal to the USEPA RPM for approval.
Document Control	Geosyntec	Project Manager Project QA Manager	John Persico JPersico@geosyntec.com 609-493-9008 Jessica Evans jmevans@geosyntec.com 609-379-9685	The reports and formal correspondence will be reviewed by Project Manager prior to submission to the USEPA. Documents with analytical data prepared for submittal to USEPA will be reviewed by the Project QA Manager or their designee prior to submittal to the Respondent's Representative for submission to the USEPA
Stop work and initiation of stop work procedure	Geosyntec	Project Manager EHS Officer	John Persico JPersico@geosyntec.com 609-493-9008 Mark Malchik MMalchik@geosyntec.com 978-206-5777	All field personnel will have stop work authority if an unsafe condition is encountered. All stop work occurrences will be reported to the Project Manager and the EHS Officer.
Work Stoppages	Geosyntec	Project Manager	John Persico JPersico@geosyntec.com 609-493-9008	The Project Manager will communicate work stoppages to the project organization within 24 hours.

QAPP WORKSHEET #6: COMMUNICATION PATHWAYS (CONTINUED)

Communication Drivers	Responsible Affiliation	Role	Contact Information	Procedure
Real time modifications, notifications, and approvals	Geosyntec	Field Manager	Thi Quan Pham TQPham@geosyntec.com 609-493-9013	Real-time modifications to the project will require the approval of the Project Manager and the USEPA RPM and will be documented within 5 working days.
Reporting of health and safety issues	Geosyntec	EHS Officer Field Manager	Mark Malchik MMalchik@geosyntec.com 978-206-5777 Thi Quan Pham TQPham@geosyntec.com 609-493-9013	H&S issues involving an injury, a stop work procedure, a “good catch,” or a condition that may result in an incident must be reported to the EHS Officer immediately. The EHS Officer will forward this information on to the Project Manager using telephone and email as soon as possible. The Project Manager will notify the USEPA RPM of any serious health and safety incident/issue within 24 hours of occurrence. Non-serious incidents/issues may be forwarded from the Project Manager to the USEPA RPM on a monthly basis within the monthly progress reports.
Reporting of issues related to Administrative Consent Order requirements.	Geosyntec	Project Manager	John Persico JPersico@geosyntec.com 609-493-9008	Issues that prevent the collection of usable data will be reported to the Project Manager immediately.
Real time changes to sample collection or analysis procedures	Geosyntec	Field Manager Project QA Manager	Thi Quan Pham TQPham@geosyntec.com 609-493-9013 Jessica Evans jmevans@geosyntec.com 609-379-9685	Conditions requiring variation to sampling and analysis procedures will be reported to the Field Manager within 24 hours of the condition requiring the modification. The Field Manager or Project QA Manager will report the variations to the Project Manager as appropriate.

QAPP WORKSHEET #6: COMMUNICATION PATHWAYS (CONTINUED)

Communication Drivers	Responsible Affiliation	Role	Contact Information	Procedure
Reporting issues related to data quality, including the inability to meet reporting limits	Eurofins	Laboratory PM	Elizabeth Zonar Elizabeth.Zonar@eurofinset.com 717-471-4479	Problems with data quality will be reported to the Project Manager and Project QA Manager within 24 hours of laboratory results. As necessary, these Geosyntec personnel may involve the third-party data validator (Environmental Standards, Inc.) if corrective action options are under discussion with Eurofins.
Data validation issues	Environmental Standards, Inc.	Third-Party Data Validator	Stephen Zeiner szeiner@envstd.com 484-808-4386	Problems with data quality or data validation will be reported to the Analytical Data QC Manager, Project Manager, and the QA Manager within 24 hours of the identification of the data validation issue.
Data Review Corrective Action	Geosyntec (with input from third-party data validator and/or laboratory, as needed)	Analytical Data QA Manager or Project QA Manager	Kristoffer Henderson KHenderson@Geosyntec.com 865-291-4705 Jessica Evans jmevans@geosyntec.com 609-379-9685	Root cause will be determined by Project QA Manager or designee. The type of corrective action may be designated from the list below: <ul style="list-style-type: none"> • Field Sampling Procedure • Offsite Laboratory Technical Systems Audit • Offsite Laboratory Technical Systems Audit: Laboratory Personnel • Data Quality Assessment The effectiveness of the corrective action will be monitored and documented by the Project QA Manager or designee.

QAPP WORKSHEET #9: PROJECT PLANNING SESSION SUMMARY

The following is a summary of Project Planning sessions that have occurred:

Date of Planning Session: September 22, 2022

Location: Web conference

Purpose: Discuss scope of work and schedule.

Attendees and Role:

Name	Organization	Title/ Role	Email
Jessica Evans	Geosyntec	Project Quality Assurance Manager	JMEvans@geosyntec.com
Christine Julias	Geosyntec	Task Manager	cjulias@geosyntec.com
John Persico	Geosyntec	Project Manager	jpersico@geosyntec.com
Gary Fisher	Nokia	Remediation Project Manager	Gary.fisher@nokia.com
Nick Longo	Chevron	Remediation Project Manager	Nick.longo@chevron.com
Christopher Gaule	Chevron	Technical Specialist	EZXXK@chevron.com
Rupika Ketu	USEPA	Project Manager	Ketu.Rupika@epa.gov
Stephanie Vaughn	USEPA	Chief, Mega Projects Section	Vaughn.Stephannie@epa.gov
Angela Carpenter	USEPA	Project Manager	Carpenter.Angela@epa.gov

Notes/Comments: Geosyntec presented information collected since July 2022 on potable wells and water supply systems in the vicinity of the Site and discussed the proposed scope of work to be included in the QAPP and Work Plan. USEPA expressed concern that the scope did not include all of the items listed in the letter sent to the Group dated August 25, 2022. All parties agreed that the primary concern is to evaluate per- and polyfluoroalkyl substances (PFAS) concentrations in groundwater at the Site and its potential to impact local drinking water. Chevron and USEPA agreed that other off-Site sources may contribute PFAS in off-Site groundwater. USEPA expressed the need to collect more samples quickly.

Consensus decisions made: Geosyntec will submit a QAPP, Work Plan, and HASP covering repair of the monitoring well network and groundwater sampling of all Site wells. The Group will consider completing the well repairs prior to USEPA approval of the Work Plan.

QAPP WORKSHEET #9: PROJECT PLANNING SESSION SUMMARY (CONTINUED)

Date of Planning Session: 9/20/2021

Location: Pennington conference room

Purpose: Discuss preparation and contents of QAPP and Work Plan

Attendees and Role:

Name	Organization	Title/ Role	Email
John Persico	Geosyntec	Project Manager	JPersico@geosyntec.com
Christine Julias	Geosyntec	Task Manager	CJulias@geosyntec.com
Jessica Evans	Geosyntec	Project QA Manager	JMEvans@geosyntec.com

Notes/Comments: A QAPP, Work Plan, and HASP are needed for the additional sampling.

Consensus decisions made: An internal schedule and task assignments for each document was developed.

QAPP WORKSHEET #10: CONCEPTUAL SITE MODEL

The following sections summarize the hydrogeology and contaminant fate and transport portions of the Conceptual Site Model (CSM) presented in the Remedial Investigation Report (RIR) (Geosyntec, 2018).

10.1 Site Description

The nearly 200-acre Site consists of a former landfill that operated from the mid-1930s through 1968 as well as other adjacent properties. The RIR indicates that waste disposal occurred over approximately 170 acres with approximately 140 of those acres consisting of waste material of varying thickness (from no waste to 18 feet of waste) overlying native soil and approximately 30 acres consisting of areas of debris scattered on the ground surface, but with no buried waste (the Surface Debris Area). The RI found no landfill-related impacts on the remaining approximately 30 acres of the Site.

Waste at the Site includes household garbage, construction and demolition debris, septic waste, scrap metal and industrial waste. Landfilled materials identified at the Site are generally consistent with typical municipal solid waste expected within a landfill that operated during this period. Evidence of potential industrial waste (based on visual observations and analytical results) was found at three isolated areas. The industrial waste found comprises a small portion of the total volume of waste disposed of at the landfill. The landfill is covered in some areas by a thin layer of soil and/or vegetation, and in others the waste is visible at the surface. Historical operations of the landfill included the application of pesticides for mosquito and rodent control on the landfill and the surrounding area.

10.2 Hydrogeologic Conditions

Surface water flows from the highest areas near the northern portion of the landfill and the two northern ponds to the east, south, and west. Water in Black Brook, east and south of the landfill, is not channelized but flows by sheet flow to the south and then to the southwest. Loantaka Brook is channelized near the Site and flows to the southwest. Wetlands between the Surface Debris Area and Loantaka Brook also appear to be subject to sheet flow, parallel to Loantaka Brook.

The northern ponds and the pond south of the Hunt Club building are isolated from Loantaka Brook and Black Brook. They do not have direct surface-water flow into them (other than an ephemeral drainage ditch that contributes surface water from the landfill to the pond south of the Hunt Club building) and are not drained by surface water flow. A culvert that crosses beneath the access road to the west of this pond has been noted, and while no connection has been observed, there is a potential for flow from the pond to the adjacent wooded area during seasonal high-water events.

The hydrostratigraphy underlying the landfill consists of a shallow water table saturated zone, comprised of silt and sand deposits underlain by a layer of glaciolacustrine clay that serves as a confining unit to the geologic formations below. Data from twenty-five monitoring wells have provided significant characterization of the hydrogeologic conditions in this shallow water-bearing zone. Monitoring well screens cross silt, sand, and clay deposits, and in some cases, the landfilled materials. The fill material, silt, and sand deposits are thin compared to the underlying clay. The shallow water-bearing zone includes the saturated portions of the fill, the silt, and the sand deposits above the clay layer, with a total saturated thickness of 15 feet or less.

QAPP WORKSHEET #10: CONCEPTUAL SITE MODEL (CONTINUED)

The depth and extent of saturation of waste material varied widely across the landfill, based on observations during test pit excavation, soil boring advancement and monitoring well installation activities. Dry, moist, and wet conditions were observed in the waste material, and the native material beneath the waste was saturated. Test pit excavation logs indicated that the depth to saturation ranged from the ground surface to beneath the waste material (if present) and in some instances saturation was not observed for the entire test pit depth. In areas where the waste material was observed to be saturated at the surface, saturation was likely from precipitation and/or overland flow.

Water likely flows vertically through the waste materials with some small horizontal component, and upon reaching the saturated material below, flows laterally with the natural groundwater flow patterns. Groundwater flow occurs laterally in the shallow water-bearing zone above the clay until reaching areas of discharge. Groundwater in the shallow water-bearing zone flows radially from the northern portion of the landfill to the south, east, and west areas of lower topographic elevation.

The presence of clay at the base of the soil borings and monitoring wells is evidence of the remnant glacial lake. The clay is grey in color with some brown or reddish-brown intervals, cohesive, and plastic, with only a small proportion of silt or fine sand. At the deepest boring, the top of the clay was 25 feet below ground surface (bgs) and the clay continued to the bottom of the boring at 50 feet bgs with little to no change in its properties. This clay is continuous beneath the landfill and will restrict vertical flow and constituent migration into groundwater below the clay layer, confining the underlying groundwater.

10.3 Constituent Fate and Transport Processes

As previously discussed, the landfill consists primarily of municipal solid waste. Some potential industrial wastes have been identified, but they are small in area and do not comprise a significant portion of the volume of the waste. This is expected based on the historical use of the landfill for disposal of municipal waste from Chatham Township and nearby municipalities. The surface of the landfill in some areas is covered by a thin soil layer and/or vegetation; in other areas, municipal waste is visible at the ground surface.

Precipitation that falls on the landfill either transpires back to the atmosphere, recharges groundwater in the shallow water-bearing zone, or runs off to the neighboring wetlands or surface-water bodies (i.e., the ponds, Loantaka Brook and Black Brook). The shallow groundwater beneath the Site occurs in a thin, sandy, and silty material that extends to 15 to 25 feet bgs. The landfill and shallow water-bearing zone are underlain by a thick, continuous, plastic clay unit. RI soil borings indicate that this unit is at least 25 feet thick. This clay unit is a barrier to vertical groundwater flow and constituent migration, protecting the underlying water-bearing material. Given the relatively low levels of constituents in the shallow water-bearing zone beneath the landfill, the nearby availability of surface discharge areas, and the thickness and lack of permeability of the clay, impacts to groundwater beneath the clay unit are not expected.

QAPP WORKSHEET #10: CONCEPTUAL SITE MODEL (CONTINUED)

Surface water and sediment in the ponds and streams (Loantaka Brook and Black Brook) on or adjacent to the landfill exhibit some constituents that are found at the landfill. As such, it is possible that surface water bodies on and adjacent to the landfill receive deposition of eroded material from the landfill containing constituents detected in surface soil samples. Many of the constituents detected in downstream sediment of Loantaka Brook and Black Brook are also found in surface water and sediment upstream of the landfill. Therefore, their presence in the streams is at least in part due to sources upgradient of the landfill. It is also likely that concentrations of lead in some sediment samples may be partially attributed to non-landfill related activities conducted in the shooting range. The results of the semiquantitative comparison of upstream and downstream data and the distribution of exceedances of Surface Water Quality Standards or Ecologically-Based Screening Levels downstream of the landfill indicate that the downstream extent of constituents related to the landfill, if any, has been defined.

Groundwater in the shallow water-bearing zone flows from the landfill to the surrounding wetlands. This constitutes a potential transport mechanism in the areas where groundwater is contaminated. However, downgradient sampling (either wells or pore-water samples) suggests that migration of constituents is not occurring from groundwater beneath the landfill to the wetlands or surface water bodies outside the landfill.

QAPP WORKSHEET #11: PROJECT/DATA QUALITY OBJECTIVES

The Data Quality Objective (DQO) process is a systematic planning tool that was designed to clarify the objectives of data collection and maximize efficiency during the data collection process. The DQO process is used to establish performance or acceptance criteria, which is the basis for designing a plan for collecting data of sufficient quality and quantity to support the goals of a study. There are seven steps to the DQO process as outlined in EPA/240/B-06-001, *Guidance on Systematic Planning Using the Data Quality Objectives Process* (USEPA, 2006).

Step 1. State the Problem – This step defines the issues to be addressed. The investigation described by this QAPP consists of the inspection and repair of Site monitoring wells followed by one groundwater sampling event at all Site monitoring wells, with samples being analyzed for a select list of per- and polyfluoroalkyl substances (PFAS) analytes. PFAS are a component of various household and industrial products and may have been disposed of in the landfill or may originate at upgradient sources and impact groundwater at the Site. This sampling event will characterize the extent of those PFAS analytes in groundwater at the Site; however, the existing monitoring well network may not be sufficient to fully delineate the extent of PFAS concentrations in groundwater. In addition, a desktop evaluation of the potential sources of PFAS at the Site will be performed both upgradient and downgradient of the Site.

Step 2. Identify the Goal of the Study – This step identifies the question(s) that the project will attempt to resolve and the actions which will be taken. The sampling discussed in this QAPP will (1) evaluate the distribution of the select list of PFAS analytes in groundwater at the Site; (2) help determine where additional monitoring wells are needed to complete delineation; (3) evaluate whether sampling of other media for PFAS is warranted; (4) identify potential sources of PFAS at the Site.

Step 3. Identify Information Inputs – This step involves evaluation of existing data, identification of data gaps, and identification of new data needs. As discussed in the Technical Report *PFAS Results for Groundwater Samples* (Geosyntec, 2022), an initial round of groundwater sampling showed that PFAS are present in certain monitoring wells at the Site at concentrations above their New Jersey Groundwater Quality Standards (GWQS), and generally occur at higher concentrations on the eastern side of the Site.

Step 4. Identify the Boundaries of the Study – This step is used to define the geographic and temporal boundaries. The boundary of the study area is the landfill and the adjacent areas. Sampling activities are expected to start in January 2023.

Step 5. Develop the Analytic Approach – The analytic approach summarizes how the information collected will guide the identification of next steps. Samples will be collected and analyzed according to the sampling design provided in Worksheet #17 of this QAPP. Data in the Technical Report *PFAS Results for Groundwater Samples* indicate that PFAS concentrations exceed their GWQS in select monitoring wells at the perimeter of the Site. Based on these data and the new data to be obtained in the proposed sampling event, additional monitoring wells will be proposed for installation to delineate the extent of PFAS related to the Site.

QAPP WORKSHEET #11: PROJECT/DATA QUALITY OBJECTIVES (CONTINUED)

Step 6. Specify Performance or Acceptance Criteria – Uncertainty is present in all measurement data, and this step sets the standards at which the degree of uncertainty is acceptable. Project-specific standards details regarding the precision and accuracy control limits for each of the target analytes and matrices, as well as the overall project goals for completeness and representativeness are described in Worksheet #12 of this QAPP.

Step 7. Develop the Plan for Obtaining Data – Worksheet # 17 provides detailed information for collection of data of sufficient quality to evaluate the distribution of the select PFAS analytes in groundwater.

QAPP WORKSHEET #12: MEASUREMENT PERFORMANCE CRITERIA

Laboratory: Eurofins Lancaster Laboratories Environmental, Lancaster, PA

Matrix: Groundwater

Analytical Group or Method: PFAS NJ SOP Modified EPA 537.1 T-PFAS-WI25232 Ver 8

Concentration Level: Low

Data Quality Indicators (DQIs)	Measurement Performance Criteria	QC Sample and/or Activity Used to Assess Measurement Performance	QC Sample Assesses Error for Sampling (S), Analytical (A) or Both (S&A)
Accuracy	In-house statistically derived acceptance limits are used for the extraction standards. See below table for specific criteria. When using statistical limits, the recovery window must be greater than 10% and less than 200%. These are reviewed annually and are updated as needed by the QA department.	Isotope Labeled Extraction Standards	A
Accuracy/Bias/Precision	Target spike compounds rotate between a low-level, mid-level and high-level spike. The QC limits for the low-level spike are 50-150. QC limits for the mid-level and high-level spikes are 70-130	Laboratory Control Spike/Matrix Spike and their Duplicates	S & A
Accuracy/Laboratory Contamination	No analytes detected >RL or >1/10th the amount measured in any sample	Method Blank	A
Precision	RPD <30%	Field Duplicate	S & A
Accuracy/Field Contamination	No detected target compounds	Field/Equipment Blank	S & A
Completeness	At least 90% of proposed samples will be collected	Reported Sample Data	S & A

QAPP WORKSHEET #12: MEASUREMENT PERFORMANCE CRITERIA (CONTINUED)

Data Quality Indicators (DQIs)	Measurement Performance Criteria	QC Sample and/or Activity Used to Assess Measurement Performance	QC Sample Assesses Error for Sampling (S), Analytical (A) or Both (S&A)
Bias/Holding Time	≤14 days to extraction/≤28 days to analysis	Reported Sample Data	A
Sensitivity	Detection limits ≤ to PALs	Detection limits	S

Acronym list

RPD - relative percent difference

QC - Quality Control

PAL – Project Action Limit

Specific criteria for isotope labeled extraction standards:

CAS #	Analytes	Rec. Low*	Rec. High*	Units	Analyte Type
STL02395	M2-4:2 FTS	27	181	%	Isotope Dilution
STL02279	M2-6:2 FTS	17	202	%	Isotope Dilution
STL02280	M2-8:2 FTS	25	202	%	Isotope Dilution
STL02703	13C2-PFDoDA	20	148	%	Isotope Dilution
STL02116	13C2 PFTeDA	10	158	%	Isotope Dilution
STL02255	13C3 HFPO-DA	20	161	%	Isotope Dilution
STL02337	13C3 PFBS	11	191	%	Isotope Dilution
STL02581	13C3 PFHxS	38	144	%	Isotope Dilution
STL00992	13C4 PFBA	40	140	%	Isotope Dilution
STL01892	13C4 PFHpA	34	143	%	Isotope Dilution

QAPP WORKSHEET #12: MEASUREMENT PERFORMANCE CRITERIA (CONTINUED)

Specific criteria for isotope labeled extraction standards (continued):

CAS #	Analytes	Rec. Low*	Rec. High*	Units	Analyte Type
STL02577	13C5 PFHxA	30	143	%	Isotope Dilution
STL01893	13C5 PFPeA	29	159	%	Isotope Dilution
STL02579	13C6 PFDA	45	135	%	Isotope Dilution
STL02580	13C7 PFUnA	33	148	%	Isotope Dilution
STL01052	13C8 PFOA	37	141	%	Isotope Dilution
STL01054	13C8 PFOS	42	136	%	Isotope Dilution
STL01056	13C8 FOSA	10	162	%	Isotope Dilution
STL02578	13C9 PFNA	36	151	%	Isotope Dilution
STL02118	d3-NMeFOSAA	23	166	%	Isotope Dilution
STL02705	d3-NMePFOSA	10	106	%	Isotope Dilution
STL02117	d5-NEtFOSAA	29	186	%	Isotope Dilution
STL02704	d5-NEtPFOSA	10	107	%	Isotope Dilution
STL02277	d7-N-MeFOSE-M	10	142	%	Isotope Dilution
STL02278	d9-N-EtFOSE-M	10	141	%	Isotope Dilution

* The acceptance limits are reviewed and potentially revised by the laboratory on an annual basis.

QAPP WORKSHEET #13: SECONDARY DATA USES AND LIMITATIONS

Data type	Source	Data uses relative to current project	Factors affecting the reliability of data and limitations on data use
Report, includes analytical results in MS Excel	Technical Report PFAS Results for Groundwater Samples (Geosyntec, 2022)	Additional sampling to obtain groundwater PFAS results	Associated laboratory limitations
NJDEP Database	NJDEP DataMiner Website	Provide information on onsite and offsite wells through well search; list of contaminated sites, water purveyor, and sewer; and potential PFAS sources	Data were obtained directly from the DataMiner. Some wells' locations listed in the database could not be identified during the windshield survey. In addition, there are discrepancies in the well location coordinates

QAPP WORKSHEET #14 & 16: SUMMARY OF PROJECT TASKS AND SCHEDULE

Office Task:

1. Desktop review of potential off-site sources

A desktop evaluation of potential sources of PFAS in the vicinity of the Site will be performed. Research will be conducted using the NJDEP DataMiner database for Known Contaminated Sites (KCS).

Field Tasks:

1. Site-wide gauging and monitoring well inspection

The water level will be measured at all monitoring wells on-Site. Each well will be inspected for damage and a plan will be made to repair any damage that would prevent a representative groundwater sample from being collected, or to replace monitoring wells if necessary.

2. Repair of existing monitoring well network

A New Jersey licensed driller will be subcontracted to perform necessary repairs. Based upon prior observations, it is anticipated that monitoring wells MW-6 and X-6 will need to be either repaired or replaced.

3. Re-survey monitoring wells as needed

Monitoring wells that need to be re-installed or that have the casing height adjusted as part of the repair process will be re-surveyed by a New Jersey licensed surveyor.

4. Groundwater sampling via low-flow method

Sampling will consist of measuring water levels and collecting groundwater samples using the low-flow purge and sample method at 25 Site monitoring wells. The water level is expected to be above the top of the screen and the tubing intake will be positioned in the center of the screened interval in each well. Decontamination and purge water will be transferred to new drums and staged with investigation derived waste already stored on-Site.

Analytical Tasks:

Groundwater analytical tasks to be conducted by Eurofins Lancaster Laboratories Environmental will include: PFAS by NJ SOP Modified EPA 537.1 T-PFAS-WI25232 Ver 8 (18 compounds)

QAPP WORKSHEET #14 & 16: SUMMARY OF PROJECT TASKS AND SCHEDULE (CONTINUED)

Quality Control (QC) Tasks:

For samples collected for analysis by Eurofins Lancaster Laboratories Environmental, equipment blanks will be collected to determine if contamination of samples has occurred in the field and, if possible, to quantify the extent of the impact on field samples. One equipment blank will be collected each day after decontamination of the water level meter to confirm the targeted PFAS are not transferred from one well to another. One additional equipment blank will consist of laboratory-supplied analyte-free water poured over or through tubing as a representative equipment blank for the tubing. One field blank will be collected by pouring laboratory supplied analyte-free water directly into sample containers to confirm that the analyte-free water and sampling container do not contain the select PFAS analytes. Field duplicate samples and matrix spike/matrix spike duplicate (MS/MSD) samples will also be collected (see Worksheet #20 for QC Sample frequency). The field duplicate QC samples will be submitted as blind duplicates with only the date collected and duplicate ID recorded on the chain of custody (COC). The samples will be identified as duplicate (DUP-01 and DUP-02), field blank (FB_YYYYMMDD), equipment blank (EB-T_YYYYMMDD and EB_YYYYMMDD), and MS/MSD samples in the laboratory report.

Data Management

Data are generated from three primary pathways: i) data derived from field activities; ii) laboratory analytical data; and iii) validated data. Data from all three pathways are entered into the project database in an electronic format in accordance with the project protocols.

Data generated during field activities are recorded using a field logbook and field forms. Forms will be reviewed for completeness and accuracy by the Field Manager. Pertinent data from the field forms are entered into the project database. Hard copy field records are stored in a secure project file.

Data generated during laboratory analysis are recorded in hard copies, electronic reports in pdf format, and in electronic data deliverables (EDDs) after the samples have been analyzed. These data are then submitted for data validation. Data validation is performed in accordance with Worksheets #33, #34, #35, #36, and #37. The data validation team works with the project database manager to facilitate the uploading of the validated data into the project database in accordance with the project protocols.

Hard copies of field forms, data, and COC forms are filed in a secure storage area. Laboratory data packages and reports are archived at the Geosyntec project office for a minimum of 5 years. Laboratories that generated the data archive data for 5 years unless instructed not to per project specifications. Field data are recorded manually in the project field book and uploaded to the project drive on a daily basis (i.e., scanned copies of hand-written notes).

Documentation and Records

In association with sample collection, field personnel are required to document all pertinent data, including date, time, location (coordinates), field personnel, weather conditions, instrument identification, instrument calibration data, and any other factors that may affect data quality. COC procedures in Worksheet #27 are followed for all samples. Hardcopy data (e.g., field notebooks; photos; hard copies of COC forms; and other items) are housed at Geosyntec offices and kept in the project files.

QAPP WORKSHEET #14 & 16: SUMMARY OF PROJECT TASKS AND SCHEDULE (CONTINUED)

Assessment/Audit Tasks

Review of standard operating procedures (SOPs) relating to field, data validation, and project activities is required prior to project start. Audit records of the laboratories are maintained by the laboratory and available upon request.

QAPP WORKSHEET #14 & 16: SUMMARY OF PROJECT TASKS AND SCHEDULE (CONTINUED)

Task or Event	Responsible Party	Planned Start Date	Planned Completion Date	Deliverable(s)	Deliverable Due Date
Submit QAPP, Work Plan, and HASP for USEPA approval	Geosyntec	August 25, 2022	October 14, 2022	QAPP, Work Plan, and HASP	October 14, 2022
USEPA Review of QAPP, Work Plan, and HASP	USEPA	October 14, 2022	December 21, 2022	Comments on QAPP, Work Plan, and HASP	December 21, 2022
Submit revised QAPP, Work Plan, and HASP	Geosyntec	December 21, 2022	January 31, 2023	Revised QAPP, Work Plan, and HASP	January 31, 2023
Receive final USEPA approval for QAPP, Work Plan, and HASP	USEPA	February 1, 2023	February 15, 2023	USEPA-approved QAPP, Work Plan, and HASP	February 15, 2023
Desktop review of potential off-site sources	Geosyntec	February 20, 2023	March 3, 2023	Summary memorandum	March 3, 2023
Implement Site-wide gauging and monitoring well inspection	Geosyntec	October 24, 2022	December 15, 2022	Field notes	December 15, 2022
Mobilize for monitoring well repairs	Geosyntec and Driller	February 8, 2023	March 3, 2023	Not applicable	Not applicable
Repair monitoring wells	Geosyntec and Driller	March 6, 2023	March 24, 2023 (depends on driller availability)	Field notes	March 15, 2023
Collect groundwater samples	Geosyntec	April 3, 2023	April 11, 2023	Field notes	April 12, 2023

QAPP WORKSHEET #14 & 16: SUMMARY OF PROJECT TASKS AND SCHEDULE (CONTINUED)

Task or Event	Responsible Party	Planned Start Date	Planned Completion Date	Deliverable(s)	Deliverable Due Date
Complete laboratory analyses	Eurofins Lancaster Laboratories Environmental	April 4, 2023	May 10, 2023	Report of analyses/Data package/Electronic Data Deliverable	May 13, 2023
Data validation	Environmental Standards, Inc.	May 11, 2023	June 13, 2023	Data Validation Summary Report/Validated Data Tables	June 14, 2023
Prepare Results Report (including Usability Assessment)	Geosyntec	June 14, 2023	July 13, 2023	Draft Results Report (and Usability Assessment)	July 14, 2023

Note: The schedule assumes that no activities will be conducted on the Great Swamp National Wildlife Refuge other than well inspections, well gauging, and groundwater sample collection. The United States Fish and Wildlife Service will review the proposed sampling procedures and the schedule anticipates that this review will be concurrent with the USEPA's review of the Work Plan, QAPP, and HASP. If other activities, such as well replacement, are required, additional time may be needed for the United States Fish and Wildlife Service to review and approve these procedures and the proposed schedule may be affected.

**QAPP WORKSHEET #15: PROJECT ACTION LIMITS AND
LABORATORY-SPECIFIC DETECTION/QUANTITATION LIMITS**

Laboratory: Eurofins Lancaster Laboratory Environmental, Lancaster, PA

Matrix: Groundwater

Analyte	CAS Number	Project Action Limit (ng/L)	Project Quantitation Limit Goal ¹ (ng/L)	Method Specific		Laboratory Specific	
				Method Detection Limit (ng/L)	Quantitation Limit (ng/L)	Method Detection Limit (ng/L)	Quantitation (Reporting) Limit (ng/L)
Perfluorohexanoic acid	307-24-4	--	2	0.5	2	0.5	2
Perfluoroheptanoic acid	375-85-9	--	2	0.5	2	0.5	2
Perfluorooctanoic acid (PFOA)	335-67-1	14	2	0.5	2	0.5	2
Perfluorononanoic acid (PFNA)	375-95-1	13	2	0.5	2	0.5	2
Perfluorodecanoic acid	335-76-2	--	2	0.5	2	0.5	2
Perfluorotridecanoic acid	72629-94-8	--	2	0.5	2	0.5	2
Perfluorotetradecanoic acid	376-06-7	--	2	0.5	2	0.5	2
Perfluorobutanesulfonic acid	375-73-5	--	2	0.5	2	0.5	2
Perfluorohexanesulfonic acid	355-46-4	--	2	0.5	2	0.5	2
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	13	2	0.5	2	0.5	2
Perfluoroundecanoic acid	2058-94-8	--	2	0.5	2	0.5	2
Perfluorododecanoic acid	307-55-1	--	2	0.5	2	0.5	2
N-ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	--	2	0.5	2	0.5	2
N-methylperfluorooctanesulfonamidoacetic acid	2355-31-9	--	2	0.5	2	0.5	2
Hexafluoropropylene oxide dimer acid	13252-13-6	--	2	0.5	2	0.5	2

**QAPP WORKSHEET #15: PROJECT ACTION LIMITS AND
LABORATORY-SPECIFIC DETECTION/QUANTITATION LIMITS (CONTINUED)**

Analyte	CAS Number	Project Action Limit (ng/L)	Project Quantitation Limit Goal ¹ (ng/L)	Method Specific		Laboratory Specific	
				Method Detection Limit (ng/L)	Quantitation Limit (ng/L)	Method Detection Limit (ng/L)	Quantitation (Reporting) Limit (ng/L)
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1	--	2	0.5	2	0.5	2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	--	2	0.5	2	0.5	2
4,8-dioxa-3H-perfluorononoic acid	919005-14-4	--	2	0.5	2	0.5	2

1. For each compound, the project quantitation limit goal is equal to the laboratory's quantitation limit or Reporting Limit (RL).

-- = not applicable

Acronym list

ng/L – nanograms per Liter

QAPP WORKSHEET #17: SAMPLING DESIGN AND RATIONALE

The following section summarizes the sampling design and rationale which will serve to characterize the potential extent of the select PFAS analytes in groundwater at the Site. PFAS are a component of various household and industrial products and may have been disposed of in the landfill or may originate at upgradient sources and impact groundwater at the Site. USEPA requested Site-wide groundwater sampling to evaluate the full extent of PFAS in groundwater at the Site. Therefore, all but one of the wells on Site¹ will be sampled (Appendix A). Sampling these locations will provide a comprehensive dataset that will inform future decisions by providing a complete picture of the extent of PFAS concentrations on-Site.

The original request from USEPA, received via email on June 7, 2021, stated that either Method 533 or 537.1 should be used for the suite of PFAS. Method 537.1 was selected upon recommendation by the Analytical Data Quality Assurance Manager. The suite of 18 PFAS compounds listed in Method 537.1 will be analyzed in this sampling plan.

Prior to sampling, vegetation will be cleared from the on-Site Fire Roads to allow vehicle access to or near the monitoring wells.

Samples will be collected using peristaltic pumps and the low-flow purge and sample technique. Samples will be analyzed by NJ SOP Modified EPA 537.1 T-PFAS-WI25232 Ver 8 for a suite of 18 PFAS compounds. The results from this sampling will provide data on the distribution of the targeted PFAS analytes. These data will be used to inform decisions on future sampling and monitoring well locations.

¹ Well X-7, which is on the northern boundary of the Site, has historically not been included in sampling programs, does not contain adequate water, and is not currently planned for sampling.

QAPP WORKSHEET #18: SAMPLING LOCATIONS AND METHODS

Twenty-six locations will be sampled, as shown in Appendix A.

The NJDEP Field Sampling Procedures Manual and Geosyntec SOPS listed in Worksheet #21 will be followed (Appendix B).

Sample ID	Matrix	Depth (ft btoic)	Type	Analytical Group	Sampling SOP	Comments
MW-1_YYYYMMDD	GW	12	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-2_YYYYMMDD	GW	11	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-3_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-4_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-5_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-6_YYYYMMDD	GW	9	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-7_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-8_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-9_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-10_YYYYMMDD	GW	11	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-11_YYYYMMDD	GW	13	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-12_YYYYMMDD	GW	11	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-14_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-15_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-16_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-17_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-18_YYYYMMDD	GW	13	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-19_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
MW-20_YYYYMMDD	GW	11	Low-Flow	PFAS EPA Modified 537.1	SOP 112	

QAPP WORKSHEET #18: SAMPLING LOCATIONS AND METHODS (CONTINUED)

Sample ID	Matrix	Depth (ft btoic)	Type	Analytical Group	Sampling SOP	Comments
X-1_YYYYMMDD	GW	13	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
X-2_YYYYMMDD	GW	15	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
X-3_YYYYMMDD	GW	20	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
X-4_YYYYMMDD	GW	15	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
X-5_YYYYMMDD	GW	10	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
X-6_YYYYMMDD	GW	8	Low-Flow	PFAS EPA Modified 537.1	SOP 112	
DUP-01	GW	Same as parent well	Duplicate	PFAS EPA Modified 537.1	SOP 112	
DUP-02	GW	Same as parent well	Duplicate	PFAS EPA Modified 537.1	SOP 112	
Same as parent ID	GW	Same as parent well	Matrix Spike	PFAS EPA Modified 537.1	SOP 112	
Same as parent ID	GW	Same as parent well	Matrix Spike Duplicate	PFAS EPA Modified 537.1	SOP 112	
FB_YYYYMMDD	DI Water	Not applicable	Field Blank	PFAS EPA Modified 537.1	SOP 112	Take 1 at start of event
EB-T_YYYYMMDD	DI Water	Not applicable	Equipment Blank	PFAS EPA Modified 537.1	SOP 112	Take 1 from tubing
EB_YYYYMMDD	DI Water	Not applicable	Equipment Blank	PFAS EPA Modified 537.1	SOP 112	Take each day from reusable equipment

QAPP WORKSHEET #19 AND 30: SAMPLE CONTAINERS, PRESERVATION, AND HOLD TIMES

Laboratory: Eurofins Lancaster Laboratory Environmental, Lancaster, PA

Accreditation: PFAS sampling in NJ; Certification #PA011 (Attachment A)

Back-up Laboratory: Alpha Analytical

Sample Delivery Method: Courier

Matrix: Groundwater

Analyte/Analyte Group	Method / SOP	Accreditation Expiration Date	Containers (number, size, and type)	Preservation Requirements	Preparation Holding Time	Analytical Holding Time	Data Package Turnaround
Perfluorinated Compounds	NJ SOP EPA537.1 T- PFAS-WI25232 Ver 8	6/30/2022	2 x 250 mL HDPE bottles	2-6 Celsius, no preservative	14 days	28 days	10 to 15 days depending on concentration

Note: Although the laboratory SOP references the preservative Trizma, this is only required for chlorinated samples such as drinking water. Since the groundwater at the site has not been treated with chlorine, there is no reason to use a preservative.

Acronym list

mL – milliliter

SOP – Standard Operating Procedure

HDPE – high density polyethylene

QAPP WORKSHEET #20: FIELD QC SUMMARY

Laboratory: Eurofins Lancaster Laboratory Environmental, Lancaster, PA

Matrix: Groundwater

Matrix	Analytical Group	Field Samples	Field Duplicate	Matrix Spike	Matrix Spike Duplicate	Equipment Blanks	Field Blanks	Trip Blanks	Other	Total # Analyses
Groundwater	PFAS	25	2	2	2	7 (1 per batch of tubing, 1 per day for reusable equipment)	1	N/A	N/A	40

Acronym list

MS/MSD - Matrix Spike/Matrix Spike Duplicate

QAPP WORKSHEET #21: FIELD SOPS

SOP Number	Title, Revision Date and / or Number	Originating Organization	Equipment Type	Modified for Project Work? (Y/N)	Comments
SOP 101	Field Documentation, Sample Designation, Custody and Handling Procedures, November 2014	Geosyntec	Does not apply to equipment	N	-
SOP 104	Management and Disposal of Investigation Derived Waste, November 2014	Geosyntec	Applies to excess water, section 2	N	-
SOP 106	Water and NAPL Level Measurement Procedures, November 2014	Geosyntec	Water Level Meter (see note 2 below)	N	-
SOP 112 (see note 2 below)	Collection of Groundwater Samples for PFAS Analysis	Geosyntec	Submersible water level meter, HydraSleeve	N	-
SOG NJ1	Dissolved Oxygen (DO) Calibration, Revision 1, April 2018	Geosyntec	YSI	N	-
SOG NJ2	Specific Conductance Calibration, Revision 1, April 2018	Geosyntec	YSI	N	-
SOG NJ3	Temperature Calibration, Revision 1, April 2018	Geosyntec	YSI	N	-
SOG NJ4	Turbidity Calibration, revision 1, April 2018	Geosyntec	YSI	N	-
SOG NJ5	pH Calibration, revision 1, April 2018	Geosyntec	YSI	N	-

1. The above SOPs are provided in Appendix B.
2. Note: Additional SOPs (such as for decontamination, SOP 103) are adjusted with SOP 112 to ensure PFAS are not introduced during field procedures.

Acronym list

SOP – Standard Operating Procedure

QAPP WORKSHEET #22: FIELD EQUIPMENT CALIBRATION, MAINTENANCE, TESTING, AND INSPECTION

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent
<p>Parameters: YSIs will be utilized during groundwater sampling and monitoring to analyze for dissolved oxygen, specific conductivity, temperature, pH, and oxidation/reduction potential.</p>
<p>Calibration: Parameter-specific calibration solutions will be used to calibrate individual sensors. Calibration parameters will include:</p> <ul style="list-style-type: none"> • Conductivity: Single-point calibration • Turbidity: Three-point calibration • Dissolved oxygen: Single-point calibration (100% saturation in air) • Temperature: Factory calibrated (temperatures of all calibration standards should be recorded during calibration) • pH: Three-point calibration (including 7.0) • Oxidation/Reduction potential (ORP): Single-point calibration <p>Calibration will be performed in accordance with instrument instruction manuals. Ensure that calibration solutions are not past the expiration date prior to calibration. Expired solutions will not be used to calibrate instruments. Water depth does not require calibration.</p>
<p>Maintenance: see below SOPs.</p>
<p>Inspection: The YSI sonde should be inspected throughout the day during real-time use to ensure proper function. Sensors should be inspected for cleanliness and integrity. Cables should be inspected for cuts and abrasions and display units should be inspected for proper function. All inspection activities should be documented, as appropriate.</p>
<p>Frequency: Calibration should be done at the beginning of the day, and whenever readings are outside of acceptable limits (see below). Inspection should be done during testing, calibration or whenever damage to the YSI may have occurred. A final calibration check will be recorded at the end of the day by the Field Manager according to the SOP. The project QA manager will review these data against the acceptable calibration limits to determine if there are any values outside acceptable ranges that may indicate inaccuracy in the recorded field parameters. Any inconsistencies will be reported to the Project Manager and data will be qualified as needed.</p>

Acronym list

SOP – Standard Operating Procedure

**QAPP WORKSHEET #22: FIELD EQUIPMENT CALIBRATION, MAINTENANCE, TESTING, AND INSPECTION
(CONTINUED)**

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent (continued)		
Acceptance:		
<u>Parameter</u>	<u>Units</u>	<u>Criteria</u>
pH	pH units	± 0.3 pH units
ORP	mV	± 10 mV
Temperature	°C	NA
Conductivity	µS/cm	± 5% of standard or ± 10 µS/cm (whichever is greater)
Dissolved Oxygen	mg/L	± 0.5 mg/L of sat. value
<p>Corrective Action: The initial corrective action for parameters falling outside of the acceptable accuracy range will be inspection of deficient sensors for dirt, deposits, or damage followed by recalibration of affected sensors. YSI recalibration should be conducted whenever readings fall outside of acceptance criteria. Some minor repairs or replacements, such as replacement of dissolved oxygen sensor membranes, may be done by field team members on site, while other repairs will require a professional repair service. Replacement batteries should be kept on hand for prompt replacement if battery levels are observed to be low or error codes indicate low batteries. Separate batteries are required for the YSI sonde and digital display, and both should be kept on hand. If midday or end-of-day checks identify results outside acceptance criteria, readings taken during the portion of the day when results may have been inaccurate should be noted and qualified.</p>		
Responsible Person: Field Team Leader		
SOP Reference: SOG NJ1, SOG NJ2, SOG NJ3, SOG NJ5		

Acronym list

SOG – Standard Operating Guideline

**QAPP WORKSHEET #22: FIELD EQUIPMENT CALIBRATION, MAINTENANCE, TESTING, AND INSPECTION
(CONTINUED)**

Turbidity Meter
Parameters: The groundwater sampling and monitoring will utilize turbidity meters to analyze for turbidity.
Calibration: Calibration will be performed using a three-point calibration curve in accordance with instrument instruction manuals and SOG NJ4. Ensure that calibration solutions are not past the expiration date prior to calibration. Expired solutions will not be used to calibrate instruments.
Maintenance: see SOG NJ4
Inspection: Equipment shall be inspected for defects upon receipt, prior to calibration, and periodically during sampling.
Frequency: Calibration is performed at the beginning of the day. Calibration checks will be done after initial calibration and at the end of the day. Testing and inspection should be done if there are any incidents which may cause damage to the unit.
Acceptance: see SOG NJ4
Corrective Action: If there is any indication that the equipment is broken or malfunctioning, it will be replaced or returned to the rental company for replacement.

Acronym list

SOG – Standard Operating Guideline

QAPP WORKSHEET #22: FIELD EQUIPMENT CALIBRATION, MAINTENANCE, TESTING, AND INSPECTION (CONTINUED)

MINI RAE 2000 and 3000

Parameters: The miniRAE 2000 is a photoionization detector (PID) that generally measures VOCs such as isobutylene, hexane, xylene, benzene, styrene, toluene, and vinyl chloride, but can be calibrated to identify other volatile gases. The instrument will be used to evaluate work areas for health and safety and PPE requirements.

Calibration: Calibration should be performed at the beginning of each workday. The calibration will be a two-point curve including a “fresh air” calibration at 0.0 ppm and a span gas calibration at 100 ppm. Calibration procedures are outlined in the MiniRAE instruction manual. A correction factor may need to be used for certain gases (see MiniRAE user manual for more information). Lower and upper alarm limits should match criteria outlined in the Health and Safety Plan for PPE upgrade conditions (generally 5 ppm and 50 ppm, sustained). Calibration should be documented daily. Ensure that calibration span gas has not expired. Expired calibration gases should not be used to calibrate the PID.

Maintenance: Battery should be charged daily and will require replacing in the field when it can no longer recharge. PIDs are sensitive to moisture; therefore, a moisture/particulate filter should always be used, fitted on the PID intake. If the lamp or lamp housing becomes wet or soiled, these areas will require cleaning in accordance with the MiniRAE user manual. Additionally, filters will require replacement after use. Indications that a filter, particulate or vapor, requires replacement include visible particulate matter, inability for unit to zero, tearing, or obstruction of flow (audible indication of pump straining). The PID digital display should be kept from overexposure to water and sunlight to maximize display longevity. Common replacement parts that will be immediately available during PID use are listed below:

- Vapor filters;
- Particulate filters;
- AA batteries; and
- Replacement lamps.

All maintenance and corrective action activities should be appropriately documented on field forms and/or in field logbooks.

**QAPP WORKSHEET #22: FIELD EQUIPMENT CALIBRATION, MAINTENANCE, TESTING, AND INSPECTION
(CONTINUED)**

Water Level Meter
Parameters: The water level meter detects water and will be used to determine the water elevation in each monitoring well.
Calibration: Not applicable.
<p>Maintenance: Battery should be changed if the battery test fails or if the water level meter does not produce sound when placed in water.</p> <p>All maintenance and corrective action activities should be appropriately documented on field forms and/or in field logbooks. Decontamination in between wells to ensure no PFAS carryover should be as per SOP 112 and includes a final PFAS-free water rinse. The decontamination effort should be noted in field forms after each use at each groundwater monitoring well.</p> <p>All maintenance and corrective action activities should be appropriately documented on field forms and/or in field logbooks.</p>

QAPP WORKSHEET #23: ANALYTICAL SOPS

Reference Number	Title	Definitive or Screening Data	Analytical Group	Instrument	Organization Performing Analysis	Modified for Project Work? (Y/N)
WI25232 (Attachment B)	New Jersey - Polyfluorinated Alkyl Substances (PFAS) in Aqueous Samples Using LC/MS/MS and Isotope Dilution, Ver 8, effective 9/1/2022	N/A	PFAS	LC/MS/MS	Eurofins Lancaster Laboratories Environmental	N
WI23588	Preventative and Corrective Maintenance for the API 4000 and AB Sciex 4500 Liquid Chromatograph Mass Spectrometers (LC/MS/MS), Rev 2, effective 02/26/2021	N/A	PFAS	LC/MS/MS	Eurofins Lancaster Laboratories Environmental	N

QAPP WORKSHEET #24: ANALYTICAL INSTRUMENT CALIBRATION

Laboratory: Eurofins Lancaster Laboratories Environmental, Lancaster, PA

Instrument	Calibration Procedure/Range	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference
LC/MS/MS NJ SOP EPA 537.1 T-PFAS-WI25232 Ver 8 (NJ waters)	Mass Calibration	Initially, annually, and after performing major maintenance	Per manufacturer specifications	NA	Laboratory Analyst	WI25232
	Tuning of LC/MS/MS	When masses fall outside ± 0.5 amu of true masses	Within 0.5 amu of true value	Retune and verify. If tuning fails acceptance criteria, perform a mass calibration and repeat the tune check.	Laboratory Analyst or Outside Vendor	
	Mass Spectral Acquisition Rate	Each analyte, labeled analyte, and injection internal standard	A minimum of 10 spectra scans are acquired across each chromatographic peak	NA	Laboratory Analyst	
	Initial calibration with a minimum 5 points for linear curves, 6 points for quadratic curves	After continuing calibration fails	S/N ratio $\geq 10:1$ for all ions used for quantification. Linear or non-linear calibrations must have a $r^2 \geq 0.99$. Must use at least 6 points for a quadratic. Analytes must be within 70-130% of their true value for each calibration standard with the exception of the lowest calibration point which must be within 50-150% of the true value.	Perform more aggressive instrument maintenance and recalibrate.	Laboratory Analyst	
	LOQ Verification	Quarterly	Within 50% of true value	Reprep and reanalyze LOQ.	Laboratory Analyst	
	ICV Standard	Once with every ICAL	Target compounds $\leq 30\%$ drift	Reanalyze the ICV. If ICV fails again do system maintenance and recalibrate.	Laboratory Analyst	

QAPP WORKSHEET #24: ANALYTICAL INSTRUMENT CALIBRATION (CONTINUED)

Instrument	Calibration Procedure/Range	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference
	CCV Standard	Every 10 samples, at the beginning and at the end of a sequence	The opening CCV of the day must be the CAL1 standard with acceptance criteria of +/- 50%. Subsequent CCVs alternate between CAL3 and CAL5 the rest of the sequence with acceptance range of within $\pm 30\%$ of the true value.	Reanalyze CCV. If CCV passes, reanalyze samples. If two consecutive CCVs fail for the same compound, two consecutive passing CCVs must be obtained or perform system maintenance and recalibrate. If a CCV fails high, indicating increased sensitivity, and target compounds are ND, data may be reported with a qualifying comment.	Laboratory Analyst	

Acronym list

AMU - Atomic Mass Unit

CCV - Continuing Calibration Verification

ICAL – Internal Calibration

ICV - Initial Calibration Verification

LC – Liquid Chromatograph

MDL – Method Detection Limit

MS – Mass Spectrometer

ND – Not detected

QAPP WORKSHEET #25: ANALYTICAL INSTRUMENT AND EQUIPMENT MAINTENANCE, TESTING, AND INSPECTION

Laboratory: Eurofins Lancaster Laboratories Environmental, Lancaster, PA

Instrument/ Equipment	Maintenance Activity	Testing Activity	Inspection Activity	Frequency	Acceptance Criteria	Corrective Action	Responsible Person	SOP Reference
LC/MS/MS	Backflush of column, injection port and pre-columns, cleaning of ion spray cone, adjustment of collision energies, others as needed	Calibration Check	Visual	As Needed	Initial calibration or calibration verification passes method specifications	Perform additional maintenance prior to instrument calibration or calibration verification	Laboratory Analyst	WI23588

Acronym list

LC – Liquid Chromatograph

MS – Mass Spectrometer

QAPP WORKSHEET #26 AND 27: SAMPLE HANDLING, CUSTODY, AND DISPOSAL

Sampling Organization: Geosyntec

Laboratory: Eurofins Lancaster Laboratories Environmental, Lancaster, PA

Method of Sample Delivery: Laboratory Courier

Number of Days from Reporting Until Sample Disposal: 30

Activity	Organization and Title of Person Responsible for the Activity	SOP Reference
Sample Labeling	Field Staff – Geosyntec	SOP 101 and SOP112
Chain of Custody Form Completion	Field Manager – Geosyntec	SOP 101
Packaging	Field Manager – Geosyntec	SOP 101 and SOP 112
Shipping Coordination	Field Manager – Geosyntec	
Sample Custody and Storage	Field Staff – Geosyntec Sample Receiving Personnel and Chemist - Eurofins Lancaster Laboratories Environmental	SOP 101
Sample Receipt, Inspection, and Log-In	Sample Receiving Personnel - Eurofins Lancaster Laboratories Environmental	S-SA-WI10723
Sample Disposal	Sample Receiving Personnel - Eurofins Lancaster Laboratories Environmental	S-SS-WI12042

Note: Example chain of custody and sample label are provided in Attachment C.

QAPP WORKSHEET #28: ANALYTICAL QUALITY CONTROL AND CORRECTIVE ACTION

Laboratory: Eurofins Lancaster Laboratories Environmental, Lancaster, PA

Matrix: Groundwater

Analytical Group: PFAS

Analytical Method/SOP: NJ SOP Modified EPA 537.1 T-PFAS-WI25232 Ver 8

QC Sample	Number/Frequency	Method/SOP Acceptance Criteria	Corrective Action	Title/position of person responsible for corrective action	Project-Specific MPC
Method blanks	1 per prep batch of up to 20 samples	No target analytes > RL or > 1/10 the amount measured in any sample	Reanalyze to confirm detections. If detects confirm re-extract samples that are not ND or not >10x the blank value	Laboratory Analyst	See Worksheet #12
LCS/LCSD (Laboratory Control Sample and its DUP)	1 per prep batch of up to 20 samples	Target spike compounds rotate between a low-level, mid-level and high-level spike. The QC limits for the low-level spike are 50-150. QC limits for the mid-level and high-level spikes are 70-130	Reanalyze LCS and associated samples. Analytes in the LCS that fail high and are ND in the samples can be reported. All others are re-extracted.	Laboratory Analyst	Same as method/SOP acceptance criteria
Isotopically Labeled Extraction Standards	Per sample (including MS/MSD, LCS, and blanks) prior to preparation	Within laboratory statistical limits, see Worksheet 12 for specific criteria. These criteria are statistically derived and updated annually as needed.	If fails for QC sample, but the native compounds are within specification, report data. If fails for sample, re-extract and reanalyze and/or consult a supervisor for course of action.	Laboratory Analyst	Same as method/SOP acceptance criteria

QAPP WORKSHEET #28: ANALYTICAL QUALITY CONTROL AND CORRECTIVE ACTION (CONTINUED)

QC Sample	Number/Frequency	Method/SOP Acceptance Criteria	Corrective Action	Title/position of person responsible for corrective action	Project-Specific MPC
Isotopically Labeled Injection Standards	Per sample (including MS/MSD, LCS, and blanks) prior to preparation	Absolute area must be -50% to +50% of the average areas measured during the ICAL	Analyze a second aliquot of the extract. If none remains, reanalyze first aliquot and/or consult a supervisor to determine course of action.	Laboratory Analyst	Same as method/SOP acceptance criteria
MS/MSD	1 per prep batch of up to 20 samples	Target spike compounds rotate between a low-level, mid-level and high-level spike. The QC limits for the low-level spike are 50-150. QC limits for the mid-level and high-level spikes are 70-130.	Flag outliers	Laboratory Analyst	Same as method/SOP acceptance criteria
Field Duplicate	1 per 20 samples	RPD <30%	Flag Data	Geosyntec Project Quality Assurance Manager	Same as method/SOP acceptance criteria
Equipment Blank	1 per batch of tubing, 1 per day for reusable equipment	No detected target compounds	Flag Data	Geosyntec Project Quality Assurance Manager	Same as method/SOP acceptance criteria

QC Sample	Number/Frequency	Method/SOP Acceptance Criteria	Corrective Action	Title/position of person responsible for corrective action	Project-Specific MPC
Field Blank	1 per event	No detected target compounds	Flag Data	Geosyntec Project Quality Assurance Manager	Same as method/SOP acceptance criteria

Acronym list

LOQ – Limit of Quantification

MPC – Measurement Performance Criteria

ND – None Detected

RPD – Relative Percent Difference

QAPP WORKSHEET #29: PROJECT DOCUMENTS AND RECORDS

Document	Where Maintained
Field Records: Field notes, COC records/forms, QAPP deviations, communications and reports, photographs, GPS printouts	Maintained at Geosyntec Pennington, NJ office until after completion of the project. Files will be archived at Geosyntec project office and included in reports submitted to USEPA.
Laboratory Analytical Records: Raw and summary data, COC and sample receipt forms, sample and instrument logs	Maintained at Geosyntec Pennington, NJ office until after completion of the project. Files will be archived at Geosyntec project office and included in reports submitted to USEPA.
Data Assessment and QA Records: Data validation report, independent technical review forms, CA communications and reports	Maintained at Geosyntec Pennington, NJ office until after completion of the project. Files will be archived at Geosyntec project office and included in reports submitted to USEPA.
Reports: Drafts, final reports, communications of progress and deviations	Maintained at Geosyntec Pennington, NJ office until after completion of the project. Files will be archived at Geosyntec project office and included in reports submitted to USEPA.

Documents and Records

Documentation is critical for evaluating the success of any environmental data collection activity. The following sections discuss the requirements for documenting field activities and for preparing laboratory data packages. This worksheet also lists documents and reports that will be generated as a result of this project.

Field Documentation

Complete and accurate documentation is essential to demonstrate that field measurement and sampling procedures are carried out as described in this QAPP. Field personnel will use printed Daily Field Record note pages to record and document field activities. The field note pages will be numbered sequentially and will list the contract name and number, the site name, and the names of subcontractors, the service client, and the Project Manager. Field logbooks will not be used in order to avoid PFAS contamination. At a minimum, the following information will be recorded in the note pages:

- Name and affiliation of all onsite personnel or visitors;
- Weather conditions during the field activity;
- Summary of daily activities and significant events;
- Notes of conversations with coordinating officials;
- References to other field logbooks or forms that contain specific information;
- Discussions of problems encountered and the resolution;
- Discussions of deviations from the QAPP or other governing documents; and
- Description of all photographs taken.

QAPP WORKSHEET #29: PROJECT DOCUMENTS AND RECORDS (CONTINUED)

If significant changes to the sampling program are needed because of unanticipated site conditions, this QAPP will need to be amended and submitted to the USEPA Region 2 for review and approval. The field logbook will provide documentation of the deviation from this QAPP and a brief rationale.

Laboratory Documentation and Data Packages

The analytical laboratory performing analysis will provide full data packages, which contain the information required for data validation. The data packages must contain any of the following elements that are applicable to the analysis to enable data validation:

- Title page;
- Table of contents;
- Data package narrative;
- Final data report tables;
- Analytical records:
 - Instrument tuning (GC/MS methods);
 - RTs and RT windows for GC/ECD analyses;
 - Calibration data;
 - Calibration verifications;
 - Internal standard RT checks and area counts for LC/MS/MS analyses;
 - The QC data required by the analytical method and/or the QAPP (blanks, LCS/LCSD, MS/MSD, and laboratory and field duplicates);
 - Chromatograms for LC/MS/MS samples, calibrations, and QC samples;
 - Mass spectra for LC/MS/MS analyses;
 - Required supporting information;
 - The sample custody documentation, including sample receipt forms;
 - Sample processing and spiking records;
 - Copies of standard preparation logs for each standard used in sample preparation and instrument calibration;
 - Run logs;
 - Raw data associated with field and QC data;
 - Chromatograms
- Documentation of manual integrations;
- List of current MDLs and RLs for the preparation and analysis methods used for sample processing.

Data Package Format

The analytical laboratory will provide electronic data deliverables (EDDs) for each analytical report. An automated laboratory information management system (LIMS) will be used to produce the EDDs. The laboratory will verify EDDs internally before they are issued. The EDDs will correspond exactly to the hard copy data. No duplicate data will be submitted. EDDs will be delivered in the appropriate format per USEPA Region 2 requirements as applicable. Data will be archived by the laboratory and by the Project Coordinator's office for a minimum of 10 years.

QAPP WORKSHEET #31, 32, AND 33: ASSESSMENTS AND CORRECTIVE ACTION

Assessment Type	Responsible Party and Organization	Number/Frequency	Estimated Dates	Assessment Deliverable	Deliverable Due Date	Person(s) Responsible for Responding to Assessment Findings (title and organizational affiliation)	Assessment Response Documentation	Timeframe for Response
Field Sampling Technical Systems Audit	Field Manager - Geosyntec	Daily	Daily during sampling	Daily Field Log and summary email	Daily	Project Manager - Geosyntec	Email and/or logged phone call	Within 24 hours
Data Quality Assessment (data validation reports)	Data Validation Manager - Environmental Standards, Inc.	1 per analytical data package	Upon receipt of final analytical data packages	Data Validation Summary Report (DVSR)	Within three weeks of receipt of analytical data packages	Laboratory PM, Eurofins Lancaster Laboratories Environmental and Analytical QA Manager	Corrective Action from Laboratory documented in email	Within two weeks of issuance of DVSR

Acronym list

QA – Quality Assurance

QAPP WORKSHEET #31, 32, AND 33: ASSESSMENTS AND CORRECTIVE ACTION (CONTINUED)

Assessment Type	Person(s) Responsible for Identifying and Implementing Corrective Actions (CA) (title and organizational affiliation)	Person(s) Responsible for Monitoring Effectiveness of CA (title and organizational affiliation)
Field Sampling Technical Systems Audit	Field Manager - Geosyntec	Field Manager - Geosyntec
Data Quality Assessment (data validation reports)	Laboratory (in consultation with Environmental Standards, Inc. and/or Geosyntec personnel if needed)	Analytical Data QA Manager

Acronym list

QA – Quality Assurance

QAPP WORKSHEET #34: DATA VERIFICATION AND VALIDATION INPUTS

Verification Input	Description	Internal/External	Responsible for Verification
Planning Documents	Project Planning documents will be evaluated prior to implementation. Examples of items for review will include designs, specifications, naming conventions, health and safety procedures, and work plans in the list of reviewed items. QAPP review items will include personnel, training, laboratories, methods, SOPs, performance requirements, DQOs, forms, QAPPs, location maps, and project specific analytes.	I/E	Project Manager Analytical Data QA Manager Field Manager USEPA Region 2 Remedial Project Manager
Field Activity Documentation	The Field Manager will review all documentation recorded by the field team during all field activities. This will include field log books, field data forms (electronic and paper), calibration records, sampling location plans, decontamination records, and daily reports.	I	Field Manager
Field Data	The data generated in the field to support the project will be checked as completed against the requirements of the Project planning documents, specific data collection requirements and applicable field SOPs. The data will be reviewed by the technical lead(s) prior to being included in the final report	I	Field Manager Leader (designated during activity)
COC Documentation	The COC documents will be peer-reviewed in the field prior to shipping of samples. The COC will also be reviewed upon receipt by the laboratory personnel and again by the data reviewers and data validation team upon receiving the analytical data packages.	I/E	Field Manager Task Leader (designated during activity) Analytical Data QA Manager Laboratory Sample Receiving personnel and Laboratory PM
CA and Non-Conformance documentation	Field CA and non-conformance reports from the laboratory will be checked as CA completed. CA taken by the laboratory will be evaluated by the Analytical Data QA Manager. CA completed by the field team will be evaluated by the Field Manager.	I	Project Manager Analytical Data QA Manager Field Manager Project QA Manager

QAPP WORKSHEET #34: DATA VERIFICATION AND VALIDATION INPUTS (CONTINUED)

Verification Input	Description	Internal/External	Responsible for Verification
Analytical Data Packages	Analytical data results will be checked as completed against the requirements of the QAPP, specific method requirements and laboratory SOPs. Analytical data packages will be reviewed by the laboratory prior to release and by the data validation team upon receipt of the data.	I	Analytical Data QA Manager
EDDs	The EDDs will be developed and provided by the laboratories. EDDs will be text files. Concentration and detection limit data will be delivered as string (as opposed to numeric) field types to ensure that the precision (i.e., number of significant digits) intended by the laboratory is represented in the EDDs. EDDs will be reviewed by the laboratory prior to release of the data and by data management and the data validation team upon receipt.	I	Field Manager Analytical Data QA Manager Laboratory Data Base Manager
Quality Control Summary Report	A summary of the laboratory QC sample results will be verified for completeness by the QA team upon receipt of data packages from the laboratory.	I	Data Validation Manager Analytical QA Manager Field Manager
Data Handling	The entry of data into the database will be evaluated for completeness and accuracy.	I	Field Manager Analytical Data QA Manager Geosyntec Database Manager

Acronym list

COC – Chain of Custody

CA - Corrective Action

DQO - Data Quality Objective

EDD – Electronic Data Deliverables

SOP – Standard Operating Procedures

QA – Quality Assurance

QAPP WORKSHEET #34: DATA VERIFICATION AND VALIDATION INPUTS (CONTINUED)

Step IIa / IIb	Data Validation Input	Description	Responsible for Data Validation
IIa	Methods	Check that the methods used were those specified by the QAPP.	Data Validation Chemist/ Geosyntec Validation Team, Field Manager
IIa/IIb	Performance Requirements	Check that the performance requirements specified by the QAPP are met.	Data Validation Chemist/ Geosyntec Validation Team, Field Manager
IIa	Report Forms	Check that the report forms are filled out completely and as required by the QAPP, method, or guidance documents.	Data Validation Chemist/ Geosyntec Validation Team, Field Manager
IIa	Sampling plans, location maps, grids, and sample ID numbers	Check that the specifications for these items were met as described by the project planning documents and work instructions.	Field Manager, Project Manager, Sampling Team peer review
IIa	SOPs (sampling and analytical)	Check that the requirements as specified by these documents were met and that the methods and SOPs referenced and contained in the QAPP were applied to the data.	Laboratory personnel, Data Validation Chemist/Geosyntec Validation Team, Field Manager
IIa	Project specific analytes	Check that the project specific analytes were reported as listed in the planning documents, specifically the QAPP.	Laboratory personnel, Technical PM, Data Validation Chemist/Geosyntec Validation Team
IIa/IIb	All required elements of the data package	Check that the required reporting elements are present in the laboratory data package.	Laboratory personnel, Data Validation Chemist/Geosyntec Validation Team

QAPP WORKSHEET #34: DATA VERIFICATION AND VALIDATION INPUTS (CONTINUED)

Step IIa / IIb	Data Validation Input	Description	Responsible for Data Validation
IIa/IIb	Sampling/Field documents	Check that the required criteria and specifications for field practices surrounding sample collection, shipping, and handling are met as specified by the project planning documents. The field documentation will be reviewed, including, but not limited to: COCs, communication logs, CA reports, documentation of field and method variances, documentation of internal QA review, EDDs review, field logs, forms, and notebook review, field calibration records, and daily field reports.	Field Manager, Project Manager
IIa/IIb	External Reports	Check that external reports created for and by the project, as applicable, such as external audit reports, laboratory assessments, performance testing results, and NELAP accreditation support the requirements of the QAPP.	Project Manager, Project QA Manager

QAPP WORKSHEET #35: DATA VERIFICATION PROCEDURES

Data Verification

During the data verification process, the laboratory data for each analytical test will be reviewed to evaluate the completeness of the data set with respect to each reference method and/or to the project requirements. This review will include the data received from the laboratory for data associated with the groundwater investigation. Depending on the level of receivables and the stage of data validation required, these records should include the sample preparation procedure, instrument calibration data and continuing calibration data, project sample and QC sample results, sample identifications, and COCs. These records should also include the completion of the records to identify the analyst(s) who performed the testing and the dates and times of sample preparation and analysis. Depending on the level of validation required, the type of calculation may be reviewed for accuracy. It is the job of the data validator to thoroughly review the data package and to record any deviations that may have occurred. It is the responsibility of the assigned laboratory personnel to thoroughly review the data package and to record any deviations that may have occurred in the case narrative. No data will be released to Geosyntec until the internal review and approval processes are complete.

Data Review Process (Steps I, IIa, and IIb)

Prior to release of the data to Geosyntec, the analytical data will be verified by the responsible laboratory. Upon receipt of the analytical data, the data validator will perform the appropriate stage of data validation, checking the compliance, comparison and usability of the data during the data validation process.

Data Review Process Steps		Step I Verification	Step IIa Compliance	Step IIb Comparison	Step III Usability
Planning Documents					
1	Evidence of required approval of plan (QAPP)	X			Uses Outputs from Previous Steps
2	Identification of personnel (those involved in the project and those conducting verification steps)	X			
3	Laboratory Name	X			
4	Methods (sampling and analysis)	X	X		
5	Performance requirements (including QC criteria) for all inputs	X	X	X	
6	Project quality objectives	X	X	X	

QAPP WORKSHEET #35: DATA VERIFICATION PROCEDURES (CONTINUED)

Data Review Process Steps		Step I Verification	Step IIa Compliance	Step IIb Comparison	Step III Usability
Planning Documents (continued)					
7	Reporting forms	X	X		Uses Outputs from Previous Steps
8	Sampling plans, location, maps, grids, and sample ID numbers	X	X		
9	Site identification	X	X		
10	SOPs (sampling and analytical)	X	X		
11	Staff training and certification	X	X		
12	List of project-specific analytes	X	X		
Analytical Data Package					
13	Case narrative	X	X		Uses Outputs from Previous Steps
14	Internal laboratory COC	X	X		
15	Sample condition upon receipt, and storage records	X	X		
16	Sample chronology (time of receipt, extraction, and analysis)	X	X		
17	Identification of QC samples (sampling or lab, temporal, and spatial)	X	X		
18	Associated (batch or periodic) PT sample results	X	X	X	
19	Communication Logs	X	X		
20	Copies of laboratory notebook, records, prep sheets	X	X		
21	CA Reports	X	X		
22	Definitions of laboratory qualifiers	X	X	X	
23	Documentation of laboratory method deviations	X	X	X	
24	Documentation of individual QC results (e.g., spike, duplicate, LCS)	X	X	X	

QAPP WORKSHEET #35: DATA VERIFICATION PROCEDURES (CONTINUED)

Data Review Process Steps		Step I Verification	Step IIa Compliance	Step IIb Comparison	Step III Usability
Analytical Data Package (continued)					
25	Documentation of laboratory method deviations	X	X	X	Uses Outputs from Previous Steps
26	EDDs	X	X		
27	Instrument Calibration Reports	X	X	X	
28	Laboratory name	X	X		
29	Laboratory sample identification numbers	X	X		
30	QC sample raw data	X	X	X	
31	QC summary report	X	X	X	
32	Raw data	X	X	X	
33	Reporting forms, completed with actual results	X	X	X	
34	Signatures for laboratory sign-off (e.g., laboratory QA/QC Manager)	X	X		
35	Standards traceability records (to trace standard source from National Institute of Standards and Technology (NIST), for example; completed during Stage 4 data validation)	X	X	X	
Sampling Documents					
36	COC	X	X		Uses Outputs from Previous Steps
37	Communication Logs	X	X		
38	CA results	X	X		
39	Documentation of CA results	X	X	X	
40	Documentation of deviation from methods	X	X	X	
41	Documentation of internal QA review	X	X	X	
42	EDDs	X	X		
43	Identification of QC samples	X	X	X	

QAPP WORKSHEET #35: DATA VERIFICATION PROCEDURES (CONTINUED)

Data Review Process Steps		Step I Verification	Step IIa Compliance	Step IIb Comparison	Step III Usability
Sampling Documents (continued)					
44	Meteorological data from field (e.g., wind, temperature)	X	X	X	Uses Outputs from Previous Steps
45	Sampling instrument calibration logs	X	X		
46	Sampling Location and Plan	X	X	X	
47	Sampling notes and drilling logs	X	X	X	
48	Sampling report (from Field Manager to Project Manager describing sampling activities)	X	X	X	
External Reports					
49	External audit report	X	X	X	Uses Outputs from Previous Steps
50	External proficiency testing sample results	X	X		
51	Laboratory certification	X	X		
52	Laboratory QA plan	X	X		
53	MDL study information	X	X	X	
54	NELAP accreditation	X	X		

QAPP WORKSHEET #36: DATA VALIDATION PROCEDURES

Step IIa / IIb	Matrix	Analytical Group	Concentration Level	Validation Criteria	Data Validator (title and organizational affiliation)
IIa/IIb	Groundwater	Analyses listed in WS#15 of this QAPP	Low/Standard	Criteria cited in the QAPP, method and SOP criteria, current National Functional Guidelines for Data Validation, and USEPA Region 2 Quality Assurance Guidance and Standard Operating Procedures. Definitive data are required for the USEPA approved analytical tests used for measuring groundwater, at the site.	Data Validation Chemist/Geosyntec Validation Team

Data Validation

Stage 4 data validation will be performed manually on the data associated with the remedial investigation and risk assessment. Full Contract Laboratory Program (CLP) or CLP-like data packages will be received for all of the analytical data regardless of the level of validation being performed on the data. During data validation, the evaluation of the data will extend beyond method, procedural, or contractual compliance (verification) to check the analytical quality of the specific data set. The data will be evaluated with regard to compliance with the DQOs and measurement quality objectives. During data validation, data validation qualifiers will be assigned to provide the basis of describing data quality. Should non-conformance issues be generated from the laboratory, the data validation procedure evaluates the impacts of the nonconformance(s) on the quality and usability of the data set.

Step IIa denotes a list of data validation activities which include the following and are associated with methods, procedures, and contracts (MPC):

- Data Deliverables – Check that the required information on sampling and analysis are provided.
- Analytes – Check that the appropriate analytes were reported, as required.
- COC – Evaluate traceability of data and examine against procedural requirements.

QAPP WORKSHEET #36: DATA VALIDATION PROCEDURES (CONTINUED)

- Holding times – Check analysis holding times.
- Sample Handling – Check that sample handling and storage procedures were met and that samples were not preserved.
- Analytical Methods and Procedures – Evaluate whether the required methods and procedures were performed.
- Data Flags – Check that the laboratory flags were defined and used correctly.
- Laboratory Transcription – Check accuracy of transcription, where applicable.
- Standards – Check that standards are traceable and meet project and contract requirements; this is completed as part of Stage 4 data validation.

Step IIb denotes a list of data validation activities which include the following and are associated with comparison with MPC in the QAPP:

- Data Deliverables and QAPP – Check that data report from Step IIa was provided.
- Field Duplicates – Compare results of field duplicates with criteria established in the QAPP.
- Project Quantitation Limits – Check that quantitation limits were achieved as outlined in the QAPP. As part of Stage 4 data validation, check that the laboratory successfully analyzed a standard at the quantitation limit.
- Confirmatory Analysis – Evaluate the agreement of the laboratory results, as appropriate.
- Performance Criteria – Evaluate QC data against project specific performance criteria in the QAPP (i.e., evaluate quality parameters beyond those outlined in the methods).
- Data Qualifiers – Check that the data validation qualifiers applied in Step IIa were those specified in the QAPP and that any deviations were specified.
- Step IIb Data Validation Report – Summarize outcome of comparison of data to MPC in the QAPP and include qualified data and explanation of the data qualifiers.

QAPP WORKSHEET #37: DATA USABILITY ASSESSMENT

To the extent possible, Geosyntec will follow USEPA's data quality assessment (DQA) process to verify that the type, quality, and quantities of data collected are appropriate for their intended use. DQA methods and procedures are outlined in USEPA QA/G9-R Data Quality Assessment, A Reviewer's Guide, February 2006. The DQA process includes five steps: 1) review the DQOs and sampling design; 2) conduct a preliminary data review; 3) select a statistical test; 4) verify the assumptions of the statistical test; 5) draw conclusions from the data.

After the data are received from the fixed based laboratory, data validation of the data will occur as described in Worksheet #36. During data validation, where necessary, data validation qualifiers will be applied to the data indicating that it has limited use, should perhaps be examined more closely, or has dramatically failed one or more data quality indicator criteria and has been rejected. This information will be supplied to the project team via a data validation report and to the data manager through updates to the database. A DQA report will be prepared on a periodic basis summarizing the overall quality of the data including field data, field QC data, laboratory QC data, and laboratory data. This will further illustrate the limitations of any qualified data that may have resulted during data validation.

It is incumbent on the project team to then utilize the data in an appropriate manner based on any limitations that have been identified.

Summarize the usability assessment process and all procedures, including interim steps and any statistics, equations, and computer algorithms that will be used:

Data usability is the process of evaluating the data validation results and determining the confidence with which any data point(s) may be used. Usability is determined by evaluating the data validation qualifier applied and the laboratory QC results. Concentration values may be considered to have a high degree of confidence because the associated method performance criteria were achieved. Estimated concentration results are evaluated with respect to the bias contributed to the value by the associated QC result. Bias direction can be estimated for data quality impacts due to surrogate recoveries, MS recoveries, and LCS recoveries. Sample concentration results that are rejected during data validation are not used in the decision-making process and should not be reported.

Describe the evaluative procedures used to assess overall measurement error associated with the project:

Data usability is evaluated with respect to the DQOs developed in this QAPP to check that the opportunity for incorporating unacceptable and manageable error into the decision-making process is minimized to the extent possible. The DQOs for this project are described in Worksheet #11.

The analytical data, data validation qualifiers, and QC results will be evaluated to determine the confidence with which the analytical data can be used in the project decision-making process. The criteria used in the data usability summary are presented as follows using the data quality indicator criteria required for this project and measured as precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS).

QAPP WORKSHEET #37: DATA USABILITY ASSESSMENT (CONTINUED)

PARCCS Overview

Introduction

This QA program addresses both field and laboratory activities. QA objectives are formally measured through the computation of performance measures known as data quality indicators (DQIs), which are in turn compared to pre-defined measurement quality objectives (MQOs) specific to the project objectives. The DQIs for measurement data are expressed in terms of PARCCS. Evaluation of DQIs provides the mechanism for on-going control and evaluation of data quality throughout the project and ultimately will be used to define the data quality achieved for the various measurement parameters. The field QA program will be accomplished through the collection of QC samples such as field duplicates and field blanks. The analytical QA program will be assessed through the internal laboratory QC performed, including method blanks, laboratory control sample (LCS) recoveries, surrogate recoveries, and matrix spike/matrix spike duplicate (MS/MSD) recoveries. The following sections describe the DQIs in greater detail, with a discussion of the associated MQOs.

Precision

Precision refers to the reproducibility or degree of agreement among duplicate measurements of a single analyte. The closer the numerical values of the measurements, the more precise the measurement. Poor precision stems from random errors (i.e., mechanisms, which can cause both high and low measurement errors at random). Precision is usually stated in terms of relative percent difference (RPD), but other estimates, such as the relative standard deviation (RSD), range (maximum value minus minimum values), and relative range are common, and may be used pending review of the data.

Precision will be checked through the collection of field duplicates and the analysis of MS/MSD and LCS/LCSD samples for the work performed at the Site. The overall precision of measurement data is a mixture of sampling and analytical factors. Analytical precision is much easier to control and quantify than sampling precision; there are more historical data related to individual method performance, and the “universe” is not limited to the samples received in the laboratory. In contrast, sampling precision is unique to the project. Sampling precision will be measured through the laboratory analysis of field duplicate samples. Laboratory precision will be measured through the analysis of laboratory duplicates, MS/MSD and LCS/LCSD samples.

QAPP WORKSHEET #37: DATA USABILITY ASSESSMENT (CONTINUED)

During the collection of data using field methods and/or instrumentation, precision is checked by reporting several measurements taken at one location and comparing the results. Precision will be determined from duplicate samples and will be expressed as the RPD between replicate/duplicate sample results, computed as follows:

$$RPD = \frac{X_1 - X_2}{(X_1 + X_2)/2} \times 100$$

where X_1 and X_2 are reported concentrations for each replicate sample and subtracted differences represent absolute values. For field duplicates, the precision goal for this project is an RPD of 30%. For laboratory duplicates, MS/MSD and LCS/LCSD the RPD goals are dictated by the specific analytical and laboratory QC acceptance criteria.

Accuracy and Bias

Accuracy refers to the degree of difference between measured or calculated values and the true value. The closer the numerical value of the measurement comes to the true value, or actual concentration, the more accurate the measurement. The converse of accuracy is bias, in which a systematic mechanism tends to consistently introduce errors in one direction or the other. Bias in environmental sampling can occur in one of three ways; these mechanisms and their associated diagnostic and management methods are as follows:

- High bias, which can stem from cross-contamination of sampling, packaging, or analytical equipment and materials. Cross- contamination is monitored through blank samples, such as equipment blanks, field blanks, and method blanks. These samples assess the potential for cross-contamination from, respectively, sampling equipment, ambient conditions, packaging and shipping procedures, and laboratory equipment. Data validation protocols described in Worksheet #36 present a structured approach for data qualification based on blank samples.
- Low bias, which can stem from the dispersion and degradation of target analytes (e.g., volatilization of chlorinated solvents during field sampling). The effects of these mechanisms are difficult to quantify. Sampling accuracy can be maximized, however, by the adoption and adherence to a strict field QA program. Specifically, sampling procedures will be performed following standard protocols described in the QAPP. Through regular review of field procedures, deficiencies will be documented and corrected in a timely manner.
- High or low bias may occur due to unacceptable recoveries, unacceptable calibration, or other system control problems. The effects of these mechanisms on analytical accuracy may be expressed as the % recovery of an analyte that has been added to the environmental sample at a known concentration before analysis. Analytical accuracy in the laboratory will be determined through the analysis of LCS/LCSDs and MS/MSDs. As with blank samples, data validation protocols provide a structured formula for data qualification based on high or low analyte recoveries.

QAPP WORKSHEET #37: DATA USABILITY ASSESSMENT (CONTINUED)

Accuracy goals are presented as upper and lower control limits for percent recovery and are generated through the compilation of control charts and referenced in each laboratory method SOP.

Representativeness

Representativeness is defined by the degree to which the data accurately and precisely describe a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. If the results are reproducible, the data obtained can be said to represent the environmental condition. Representativeness is evaluated by collecting sufficient numbers of samples of an environmental medium, properly chosen with respect to place and time. The precision of a representative set of samples reflects the degree of variability of the sampled medium, as well as the effectiveness of the sampling techniques and laboratory analysis.

Completeness

Completeness is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is essentially the same for all data uses in that sufficient amount of valid data are to be generated.

There are limited historical data on the completeness achieved by individual methods. However, the Contract Laboratory Program data have been found to be 80 to 85% complete on a nationwide basis. The percent completeness for each set of samples will be calculated as follows:

$$\% \text{ Completeness} = \frac{\text{Valid Data}}{\text{Total Data Planned}} \times 100$$

The QA objective for completeness for all parameters will be 90%.

Comparability

Comparability expresses the confidence with which one data set can be compared to another data set measuring the same property. Comparability is evaluated through the use of established and approved analytical methods, consistency in the basis of analysis (e.g., wet weight, volume), consistency in reporting units (µg/L, mg/L), and analysis of standard reference materials. By using standard sampling and analytical procedures, data sets will be comparable.

Sensitivity

Sensitivity refers to the minimum magnitude at which analytical methods can resolve quantitative differences among sample concentrations. If the minimum magnitude for a particular analytical method is sufficiently below an action level or risk screening criterion, then the method sensitivity is deemed sufficient to fully evaluate the dataset with respect to the desired reference values. Frequently, risk-based screening levels fall below the sensitivity of even the most sensitive analytical methods. In such cases, it is necessary to review the qualifications of several laboratories, both from the standpoint of sensitivity as well as other DQIs, to select the best laboratory for the project.

QAPP WORKSHEET #37: DATA USABILITY ASSESSMENT (CONTINUED)

The method detection limit (MDL) is a theoretical limit determined through an MDL study, in which the concentration of a spiked solution is analyzed at least seven times. The standard deviation of the recovered concentrations (σ_{rec}) is computed and multiplied by the t-distribution value to arrive at the MDL. Method blank results are also used in the MDL calculations. In practice, to allow for matrix interferences variability in instrument control, a reporting limit of 2.5 to 5 times the MDL is typically selected. The reporting limit (RL) used for each analyte must be supported by an initial calibration that incorporates one or more calibration standards with the concentrations at or below the reported RL.

Analytical sensitivity is readily evaluated by comparing method reporting limits to risk-based screening values. The results of this analysis are presented in Worksheet #15, which demonstrate the suitability of the selected methods to the project requirements.

Identify the personnel responsible for performing the usability assessment:

Data usability is first evaluated by the data validation team, the analytical quality assurance manager, and the laboratory performing the fixed base analysis. Usability of data collected in the field is first determined by the field team and Field Manager. Once the data are validated the usability of the data are determined by the project team, specifically the technical leaders for the project and the Project Manager.

Describe the documentation that will be generated during usability assessment and how usability assessment results will be presented so that they identify trends, relationships (correlations), and anomalies:

Data usability will be documented through validation reports as well as through the issuance of data validation summary reports, which will summarize how the data reflect the specific criteria for the data quality indicators assigned to the project.

QAPP APPENDIX A



Notes:

Monitoring Wells Selected for PFAS Sampling

Edge of landfilled wastes (dashed where approximate)

Great Swamp National Wildlife Refuge property boundary

Potential Bog Turtle Habitat Area A

Potential Bog Turtle Habitat Area B

Waste and debris observed on ground surface but not observed or anticipated below ground surface

1951 Landfill

Wetland

150-foot Wetland Transition Area

Open water

4002000400 Feet

Site Map

ROLLING KNOLLS LANDFILL SUPERFUND SITE
CHATHAM, NEW JERSEY

Geosyntec consultants

Pennington, NJSeptember 2022

Appendix A

E:\GIS\GISProjects\RollingKnolls\MapDocs\RollingKnolls\GIS\MapDocs\RollingKnolls\Appendix A\Appendix A.mxd

QAPP

APPENDIX B

Written by: Lauren Wellborn
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Reviewed by QA Manager: Julia K. Caprio

Date: 2/24/2014
Date: 11/15/2014
Date: 11/17/2014

STANDARD OPERATING PROCEDURE NO. 101 FIELD DOCUMENTATION, SAMPLE DESIGNATION, CUSTODY AND HANDLING PROCEDURES

SECTION 1 INTRODUCTION

1.1 Objective

The objective of this standard operating procedure (SOP) is to maintain the integrity of each sample from the time of collection to the point of data reporting must be maintained throughout the study. Proper record keeping will be implemented in the field to allow samples to be traced from collection to final disposition. All information relevant to field operations must be properly documented to ensure that activities are accounted for and can be reconstructed from written records. Several types of logbooks will be used for this purpose and should be consistently used by field crews (e.g., field logbooks, field data sheets). This document describes the procedures to be followed for field documentation, sample designation, handling, and custody.

1.2 Referenced Documents and SOPs

- Health and Safety Plan (HASp),
- Quality Assurance Project Plan (QAPP)
- SOP 102 Procedure to Prepare Samples for Shipment

SECTION 2 FIELD DOCUMENTATION

2.1 Field Documentation

During field sampling events, field logbooks and field data sheets are used to record all daily field activities. The purpose of the field logbook is to document events that occur and record data measured in the field.

Data entry will be made in a bound, waterproof field logbook with consecutively numbered pages using indelible ink for each sampling event; all entries will be signed and dated and no erasures will be made. All corrections should consist of a single line-out deletion, followed by the sampler's initials and the date. The sampler will sign and date the last page at the end of each day, and a line will be drawn through the remainder of the page.

The project name, site name and location, and dates of sampling activity should be written on the cover of the field logbook. If more than one logbook is used during a single sampling event, then the upper right hand corner of the logbook will be annotated (e.g., 1 of 2, 2 of 2) to indicate the number of logbooks used during the field event. Alternatively, multiple logbooks could be used for different sampling activities (e.g., one logbook for surface water sampling and one for groundwater sampling). When multiple logbooks are used for a single sampling activity (e.g., 2 or more sampling teams operating simultaneously during a single surface water sampling event) logbooks should be annotated alphabetically to indicate which of those books is the primary, secondary, etc. logbook for that sampling activity, followed by the number of the logbook. For example, if surface water sampling requires 3 teams and each have a logbook to record daily activity over the sampling event then the primary book will be labeled “Log Book A-1” and the others as “B-1” and “C-1.” When only one team is on site, they will use the primary (A) logbook. Field logbooks will be stored in a secure manner when not in use in the field.

In addition to the field logbook, supplementary field data forms may be used during a field sampling event to record the relevant information (e.g. field calibration forms, groundwater monitoring form). At a minimum, the sampler will record the following information daily in the field logbook or on a field sampling form, as applicable:

- Project name, project location, project number and daily objective;
- Project start date and end date;
- Date and time of entry (24-hour clock);
- Time and duration of daily sampling activities;
- Weather conditions at the beginning of the field work and any changes that occur throughout the day, including the approximate time of the change;
- Name of person making entries and other field personnel, including the times that they are present;
- Onsite visitors, if any, including the times that they are present;
- The name, agency, and telephone number of any field contacts;
- The sample number and analysis code for each sample to be submitted for laboratory analysis ;
- All field measurements made, including the time that the measurement was collected;
- The sampling location name, date, gear, water depth (if applicable), and sampling location coordinates;
- Type of sample gear used (e.g., pump type or model, gill net mesh size, size of core barrel);
- The location and description of the work area, including sketches and map references, if appropriate;

- Specific information on each type of sampling activity;
- The sample type (i.e., groundwater, soil, surface sediment), and sample number;
- Cross-references of numbers for duplicate samples;
- A description of the sample (source and appearance, such as soil or sediment type, color, and odor);
- Log of photographs (number taken, photo number on roll or memory card, brief description of photo) taken at the sampling location, if any;
- Variations, if any, from specified sampling protocols and reasons for deviation;
- References to other logbooks used to record information (e.g., field data sheets, health and safety log); and
- The signature of the person making the entry.

Monitoring or sampling equipment information, including installation information, any maintenance performed on each piece of equipment, calibration information, and other observations relating to the operation or condition of the equipment, will be recorded on field forms, in field logbooks, and/or in a separate field logbook maintained for a specific type of monitoring or sampling equipment. Upon completion of the field sampling event, the field team leader will be responsible for submitting all field logbooks and field data forms to the project data manager to be copied. Hard copy and an electronic copy shall be maintained in the project files.

SECTION 3 SAMPLE DESIGNATION AND HANDLING

3.1 Sample Labels

A self-adhesive, non-removable label will be affixed to each sample container and completed with an indelible marker prior to sample collection. Sample labels will contain the following information:

- Site name;
- Project number;
- A unique sample identification number (see QAPP for correct sample designation nomenclature);
- Initials of sample collector(s);
- Time and date collected;
- Analysis required; and
- Sample preservative (if applicable).

If samples are likely to contain high concentrations of VOCs or other analytes, the samples will be identified on the chain-of custody forms. Field duplicate or replicate samples will require special procedures for sample designation to ensure that they are submitted as blind samples to the laboratory. The well identification or sample location will not be included in the sample identification number and the collection time will be left blank but recorded in the field log book. The sample and corresponding field QC sample information will be documented in the field records.

3.2 Sample Handling

Each sample container will be sealed in a separate plastic bag following collection. Samples will then be stored in an insulated cooler containing ice packs or ice sealed in a plastic bag. If samples are not immediately shipped to the laboratory, they may be stored in a secure refrigerator/freezer and maintained at the proper temperature. Samples selected for laboratory analysis will be transferred to insulated coolers for overnight shipment to the laboratory. All samples shipped will be carefully checked against the chain-of-custody form (discussed below). Each cooler will be packed in a manner that will prevent damage to sample containers during shipment in accordance with SOP 102.

3.3 Sample Custody and Documentation

Chain-of-custody forms will be used to trace the possession and handling of all samples, from their collection, through analysis, until their final disposition. These forms will document the names of the relinquishing and receiving parties, the time and date of the transfer of custody, and the reason for the transfer of custody. One chain-of-custody form will accompany each cooler shipped to the laboratory. In the event that multiple coolers of samples are being sent to the same location, a unique, task specific, sample shipment group identifier and the number of coolers will be added to the top and special instructions portions of each chain-of-custody. The identifier will include the sample task (e.g., SW for surface water, SED for sediment), sample shipment group (SSG), date (year followed by day of year), and cooler destination (e.g., PITT for Test America Pittsburgh, NC for Test America North Canton). The chain-of-custody form will be placed in a sealed plastic bag inside the cooler. A custody seal will be placed on each cooler after packing and prior to shipment. For multiple cooler shipments, the sample shipment group identifier listed on the chain-of-custody will be written on the custody seal, as well as the cooler number designation (e.g., cooler 1 of 2, cooler 2 of 2). Shipping of samples to the laboratory will be accomplished by Federal Express or equivalent overnight service. Samples will remain in the custody of the sampling team until custody is relinquished to the courier service that will transfer the samples to the laboratory. Each sample shipment will be tracked via the courier weigh bill number to ensure that prompt delivery of the shipment to the laboratory has occurred.

Upon receipt by the laboratory sample custodian, the Sample Custodian will note on the form whether the custody seal is intact, the cooler temperature, the presence of air bubbles in any of

the water samples submitted for VOC analysis, any damaged sample containers and/or discrepancies between the sample label and information on the form, and sign and date the form. A copy of the chain-of-custody form will then be transmitted to the Project Manager or their designate for their records.

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Date: 2/24/2014
Date: 11/15/2014
Date: 11/17/2014

STANDARD OPERATING PROCEDURE NO. 104 MANAGEMENT AND DISPOSAL OF INVESTIGATION DERIVED WASTE

SECTION 1 INTRODUCTION

This Standard Operating Procedure (SOP) establishes protocols for testing, storage, and disposal of Investigative Derived Waste (IDW). Disposal of laboratory test equipment and supplies will be handled in accordance with the laboratory QAPP.

1.1 Objective

IDW generated during investigation activities may include:

- Sediments
- Surface water
- Photoionization Detector/Flame Ionization Detector (PID/FID)
- Personal Protective Equipment (PPE)
- Disposable sampling equipment
- Spent decontamination liquids
- Plastic sheeting, containers, etc.

The management of these IDW will be conducted to limit exposure of site personnel to hazardous materials and to prevent introduction of contaminated materials to uncontaminated environmental media at the site.

1.2 Referenced Documents and SOPs

- Health and Safety Plan (HASP)
- Quality Assurance Project Plan (QAPP)

SECTION 2 GENERAL MEDIA

All IDW identified as potentially contaminated with hazardous materials, including NAPL, will be collected at the point of generation and later stored in a designated and clearly marked IDW management area. All containers/drums will also be clearly labeled to indicate the source of the IDW. The IDW storage area will be inspected daily to ensure that storage procedures are adequate to keep the IDW isolated and contained. Potentially contaminated IDW will be identified based on its origin and olfactory and visual evidence (e.g., presence of NAPL). Laboratory testing will be required to determine the proper disposition of these IDW.

The volume of waste will be minimized whenever applicable. Soil, sediment, liquid, and personal PPE IDW will be segregated and separately containerized. The PPE and plastic sheeting will be disposed of as nonhazardous waste unless it has been grossly contaminated. Spent decontamination liquids will be containerized in drums and tested to determine the proper disposal method.

SECTION 3 SURFACE WATER

Surface water waste may be generated as excess sample material. The required testing and handling of these IDWs will depend on their origin and characteristics. Olfactory, visual observations, and field screening with PID/FID will be used to determine if the surface waters contain potentially elevated levels of hazardous materials. Based on previous site investigations, surface waters are anticipated to not meet the characteristics of hazardous waste. Therefore, unless field observations indicate otherwise, excess sample volumes will be disposed of at the point and time of collection back to the water body.

SECTION 4 SEDIMENTS

Waste sediments will be generated as excess sample material. The required testing and handling of these IDWs will depend on their origin and characteristics. Olfactory, visual observations, and field screening with PID/FID will be used to determine if the sediments contain potentially elevated levels of contaminants of potential concern (COPC) and direct where confirmation samples will be collected for hazardous waste characterization per the QAPP. It is anticipated that sediments meeting the characteristics of hazardous waste will be encountered. Therefore, as dictated by field measurements, excess sample material will be collected at the point of generation and later stored in a designated and clearly marked IDW management area.

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Date: 11/3/2014
Date: 11/15/2014
Date: 11/17/2014

STANDARD OPERATING PROCEDURE NO. 106 WATER AND NAPL LEVEL MEASUREMENT PROCEDURES

SECTION 1 INTRODUCTION

This Standard Operating Procedure (SOP) was prepared to direct field personnel in the methods for conducting water level measurements and assessing non-aqueous phase liquid (NAPL) presence and quantity in monitoring wells during field investigations at hazardous and non-hazardous waste sites.

1.1 Objective

The objective of water level measurements is to gain accurate measurements (to within 0.01 ft) of the depth of ground water for use during well installation, in the recording of data for the preparation of ground water elevation contour maps, purge volume calculations during ground water sampling, slug tests, packer tests, and pump tests. Additionally, the objective of measuring the water/oil interface is to confirm NAPL presence, and estimate the quantity of NAPL present.

1.2 Reference Documents and SOPs

- SOP 103 Decontamination Procedure for Sampling Equipment

1.2 Equipment

The following list of equipment may be utilized during water level measurements. Site-specific conditions may warrant the use of additional or deletion of items from this list.

- electronic water level indicator or oil/water interface meter (graduated);
- tap Water;
- Alconox, liquinox or other non-phosphate concentrated laboratory grade soap;
- deionized Water;
- pump sprayer;
- pint squeeze bottles;
- any necessary personal protective equipment (gloves, eyewear, tyvek suits);
- air monitoring instruments as required (HNu, OVM, etc.);
- field logbook and applicable supplementary field data forms;
- well keys;

- previous measurement data (if available); and
- plunker on tape.

SECTION 2 PROCEDURES

The following procedures should be followed during water level measurements. Procedures utilized during water level measurements where non-aqueous phase liquids are present should be modified to include the use of the oil/water interface meter. When the objective is to record NAPL depth and/or thickness, an oil/water interface meter should be used. Procedures may vary depending on the equipment used and contaminants present at the site. As such, use of the oil/water interface meter or electronic water level indicator should adhere to the manufacturers' specifications. Site specific conditions may warrant the use of stringent air monitoring and potentially more significant decontamination scenarios.

1. Record the condition of the well (protective casing, concrete collar, lock in place etc.).
2. Check that the water level tape has no obvious kinks or damage.
3. Put on latex or other sterile gloves. Stand upwind of the well; unlock and open the well. If a vented cap is present, conduct well mouth air monitoring from the vent. If a non-vented well cap is present, remove the cap and monitor the well mouth immediately. Record all pertinent air monitoring results (sustained, dissipating, background, odor).
4. Identify the previous measuring point marking or notch on the riser or casing (if present). Record this location in the field logbook or on the applicable field form (e.g. water level monitoring form).
5. Using a previously decontaminated electronic oil/water interface meter or water level indicator, turn on the meter, check the audible indicator, reel the electronic probe into the well riser (with the increments visible) slowly until the meter sounds, grasp the tape with hand, withdraw the tape and lower it again slowly until the sound is again audible. Check the depth to water on the tape and make a mental note of the depth to within 0.01 feet. Lower the probe again slowly and repeat the measurement for accuracy. A one-foot error is the most common measurement type during water level measurements. Be sure to read the depth correctly on the tape.
6. Record the depth to water from the measuring point in the field logbook or on the applicable field form (e.g. water level monitoring form).
7. When using an oil/water interface probe to record NAPL depth and/or thickness advance the probe slowly until the audible indicator sound changes. Check the depth to water on the tape and make a mental note of the depth to within 0.01 feet. Lower the probe again slowly and repeat the measurement for accuracy. A one-foot error is the most common

measurement type during water level measurements. Be sure to read the depth correctly on the tape.

8. Repeat as necessary.
9. Decontaminate the probe and meter and any obviously soiled tape. Refer to SOP 103 equipment decontamination.

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Revised by: Jessica Evans
Reviewed by: John Persico

Date: 9/18/2019
Date: 9/25/19
Date: 10/4/19
Date: 8/25/2021
Date: 8/26/2021

STANDARD OPERATING PROCEDURE NO. 112 COLLECTION OF GROUNDWATER SAMPLES FOR PFAS ANALYSIS

SECTION 1 INTRODUCTION

1.1 Objective and Scope

The objective of this standard operating procedure (SOP) is to establish a standard procedure for collecting a representative sample of groundwater for laboratory analysis of per- and polyfluoroalkyl substances (PFAS). This objective requires that the sample be both free of extraneous PFAS containing material and be of sufficient quantity and quality for analysis by the selected analytical method. PFAS are potentially present in a variety of materials that may come into contact with water samples and most regulatory laboratory analytical method detection limits are low (i.e., sub nanogram per liter concentrations). Therefore, stringent sampling practices are recommended to avoid sample cross-contamination and false positive results. The procedures in this SOP are consistent with best practices at the time of authoring.

The New Jersey Department of Environmental Protection (NJDEP) does not currently have guidance published related to sampling for PFAS in New Jersey. This SOP has been developed using the below-referenced documents, best practices in groundwater sampling, and professional judgement. Care should be taken when implementing this SOP, however, to ensure that it complies with any New Jersey requirements or guidance published prior to sample collection. This SOP will be updated as new guidelines are released.

1.2 Referenced Documents and SOPs

- Geosyntec (Florida) SOP for Groundwater Sampling of Monitoring Wells and Analysis of Per- and Polyfluoroalkyl Substances.
- NJDEP Field Sampling Procedures Manual, 2005, as revised 11 April 2011.
- Geosyntec SOP 108 Collection of Groundwater Samples.
- EON Products Inc. Interim Field Manual

1.3 **Definitions and Acronyms**

1.3.1 **Definitions**

Bladder pump	A positive displacement pump that is acceptable for collection of all analytes and depths. Can be small enough to sample from wells as small as 3/4-inch in diameter.
Dedicated equipment	Equipment that is installed in or used in just one monitoring well for purging and sampling, and that remains in that well for the duration of the monitoring program. Dedicated equipment does not need to be decontaminated between sampling events.
Inertia pump	A riser tube fitted with a one-way foot valve. Best used on small diameter wells (2 inches or less). Can be used if the depth to water is less than approximately 25 feet.
Peristaltic pump	A positive displacement pump that can be used to move fluids at a fixed rate. Peristaltic pumps are typically used if the depth to water is less than approximately 25 feet. Please note: a peristaltic pump may not be used in NJ for VOC or SVOC sample collection.
PFAS-free water	Water that has been analyzed by an accredited laboratory (see Section 3.1) and determined to be below the method detection limit (i.e., non-detect) for the suite of PFAS to be analyzed for in environmental samples. Method detection limits (MDLs) used during analysis of PFAS-free water should be at or below the MDLs used for environmental samples.
Potable water	Water that meets state and federal drinking water requirements. Note this water may or may not have detectable PFAS concentrations.
Submersible pump	A positive-pressure pump that is acceptable for collection of all analytes. Achievable depths are limited by the power of the pump and length of wiring. Well must be at least 2 inches in diameter.

1.3.2 **Acronyms**

ASTM	American Society for Testing and Materials
CoC	chain of custody
DO	dissolved oxygen
DoD	Department of Defense
DOT	Department of Transportation
ETFE	ethylene tetrafluoroethylene
FEP	fluorinated ethylene propylene
HDPE	high-density polyethylene

IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
LDPE	low-density polyethylene
MDL	method detection limit
MFB	modified field blank
MS	matrix spike
MSD	matrix spike duplicate
NJDEP	New Jersey Department of Environmental Protection
ORP	oxidation-reduction potential
PDB	passive diffusion bag
PFAS	per- and polyfluoroalkyl substances
PFTE	polytetrafluoroethylene
PPE	personal protective equipment
PVC	polyvinyl chloride
PVDF	polyvinylidene fluoride
QA	quality assurance
QC	quality control
QSM	quality systems manual
SOP	standard operating procedure
SVOC	semi-volatile organic compound
USGS	United States Geological Survey
VOC	volatile organic compound

1.4 Equipment and Products

Sections 1.4.1 and 1.4.2 detail items that are acceptable to use versus not recommended for use on the job site to protect PFAS samples from potential cross-contamination. Science-based evidence is not currently available to support conclusions regarding the realistic impact of these commonly used field items and materials on the quality of PFAS samples. In the absence of scientific-based sampling guidance, field staff, contractors, and analytical laboratories should avoid using items that may pose a risk for cross-contamination and false positive results and instead use acceptable alternatives identified in this section. If the field team needs to use products and equipment on site that are not recommended, additional quality assurance/quality control (QA/QC) samples may be collected to evaluate any potential impact on PFAS environmental samples. This information is also provided in an abbreviated format as a checklist for field staff to reference (Attachment A).

1.4.1 Field Equipment

Items that are **acceptable to use** on site when sampling for PFAS include the following:

- Sampling containers, screw caps and other equipment made from high-density polyethylene (HDPE)¹, polypropylene, silicone, acetate, or stainless steel;
- Sample preservatives (e.g., Trizma[®], required for chlorinated drinking water samples, but not required for groundwater samples);
- QA/QC samples (e.g., temperature and field blanks);
- Sample container labels;
- Low-density polyethylene (LDPE)² materials not in direct contact with the sample (e.g., Ziploc[®] bags);
- Materials made of HDPE, silicone, acetate, or stainless steel;
- Masonite or aluminum clipboards;
- Ballpoint pens;
- Sampling forms, loose paper or field notebooks, chain of custody (CoC) record, and sample container labels;
- Alconox[®], Liquinox[®] and Luminox[®] detergents;
- Paper towels;
- Trash bags;
- HDPE sheeting;
- Hard-shell coolers;
- Shipping and handling labels;
- Regular (wet) ice;
- Bubble wrap;
- Duct tape and packing tape;
- Large (e.g., 55-gallon) containers;
- Submersible pumps, peristaltic pumps, and inertia pumps that do not have Teflon components;
- Dedicated Silicon and/or HDPE tubing;
- HDPE HydraSleeves and Dual-membrane PDBs

1 HDPE plastics are commonly identified by a recycling symbol with a number 2 inside it.

2 LDPE plastics are commonly identified by a recycling symbol with a number 4 inside it.

- Analytical field meter (e.g., temperature, pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO], and turbidity); and
- Water level probe(s).

Items **to be avoided (i.e., not recommended) for use** on site include the following:

- Glass sample containers, due to PFAS adherence to glass surfaces;
- Water-resistant paper, notebooks, and labels (e.g., certain Rite in the Rain[®] products), due to use of PFAS in water-resistant inks and coatings;
- Sticky notes (e.g., certain Post-It[®] products), due to potential use of a paper coating product Zonyl[™] or similar fluorotelomer compounds;
- Plastic clipboards, binders, and spiral hardcover notebooks;
- Pens with water-resistant ink;
- Felt pens and markers (e.g., certain Sharpie[®] products) – some PFAS SOPs (e.g., Michigan) specifically allow Fine or Ultra-Fine Point Sharpies[®] and TestAmerica Laboratories, Inc. routinely uses Sharpies[®] in the laboratory following unpublished analytical tests that reportedly showed no impact on PFAS sample results;
- Aluminum foil, as PFAS are sometimes used as a protective layer;
- Decon 90[™] liquid detergent, which reportedly contain fluorosurfactants;
- Chemical (e.g., blue) ice packs;
- Materials containing polytetrafluoroethylene (PTFE) including Teflon[™] and Hostaflon[®] (e.g., tubing, tape, plumbing paste, O-rings, QED bladder pump);
- Equipment with Viton[™] components (i.e., fluoroelastomers);
- Stain- or water-resistant materials, as these are typically fluoropolymer-based;
- Material containing LDPE, particularly if used in direct contact with the sample (e.g., LDPE tubing, as PFAS can sorb to the porous tubing); and
- Material containing “fluoro” in the name – this includes, but is not limited to, fluorinated ethylene propylene (FEP), ethylene tetrafluoroethylene (ETFE), and polyvinylidene fluoride (PVDF).

1.4.2 Clothing, Personal Protective Equipment (PPE), and Consumer Products

Items that are **allowed for use** when sampling for PFAS include the following:

- Boots made of polyurethane, polyvinyl chloride (PVC), rubber, or untreated leather;
- Other field boots covered by PFAS-free (e.g., polypropylene) over-boots;

- Rain gear made of neoprene, polyurethane, PVC, wax-coated, vinyl, or rubber;
- Clothing made of synthetic (e.g., polyester) or natural (e.g., cotton) fibers;
- Safety glasses;
- Reflective safety vests;
- Hardhats;
- Disposable powder-free nitrile gloves;
- Uncoated HDPE suits (e.g., certain Tyvek[®] products);
- Bottled water and hydration drinks; and
- Sunscreens³ and insect repellants⁴ that have been tested and found to be PFAS-free.

Items **to be avoided (i.e., not recommended) for use** on site include the following:

- Water-, flame-, or stain-resistant boots and clothing;
- Rain gear made from fluoropolymers such as Gore-Tex;
- Clothing recently laundered with a fabric softener;
- Coated HDPE suits (e.g., certain Tyvek[®] products);
- Sunscreen and insect repellants containing fluorinated compounds as ingredients, such as polyfluoroalkyl phosphate esters;
- Latex gloves;
- Cosmetics (including nail polish), moisturizers, hand cream, and other related products;
- Fluoride containing toothpaste or mouthwash.
- Food wrappers and packaging; and

3 Examples of PFAS-free sunscreens include Alba Organics Natural, Aubrey Organics, Banana Boat Sport Performance Sunscreen Lotion Broad Spectrum SPF 30, Banana Boat for Men Triple Defense Continuous Spray Sunscreen SPF 30, Banana Boat Sport Performance Coolzone Broad Spectrum SPF 30, Banana Boat Sport Performance Sunscreen Stick SPF 50, Coppertone Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50, Coppertone Sport High-Performance AccuSpray Sunscreen SPF 30, Coppertone Sunscreen Stick Kids SPF 55, Jason Natural Sun Block, Kiss my Face, L'Oréal Silky Sheer Face Lotion 50+, Meijer Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50, Meijer Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70, Neutrogena Beach Defense Water + Sun Barrier Lotion SPF 70, Neutrogena Beach Defense Water + Sun Barrier Spray Broad Spectrum SPF 30, Neutrogena Pure & Free Baby Sunscreen Broad Spectrum SPF 60+, Neutrogena Ultra-Sheer Dry-Touch Sunscreen Broad Spectrum SPF 30, Yes to Cucumbers, and sunscreens for infants. Products with fluorinated compounds as ingredients (e.g., polyfluoroalkyl phosphate esters) should not be worn during sampling.

4 Examples of PFAS-free insect repellent include Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect repellent, Herbal Armor, California Baby Natural Bug Spray, BabyGanics, OFF! Deep Woods[®] spray for clothing and skin, Sawyer[®] do-it-yourself permethrin treatment for clothing, Insect Shield Insect[®] pretreated clothing, DEET products, and sunscreen/insect repellent combination product Avon Skin so Soft Bug Guard-SPF 30. Products with fluorinated compounds in their ingredients (e.g., polyfluoroalkyl phosphate esters) should not be worn during sampling.

- Food and drinks other than bottled water or hydration drinks.

Field staff should try to find acceptable alternatives to these items that still allow them to complete the field work safely and efficiently. For example, wearing long-sleeved clothing and a hard hat or sun hat may eliminate the need to use sunscreen in some climates. Increased heat exhaustion and heat stroke risk should also be considered if wearing long sleeves in hot climates. If an item cannot be easily avoided, additional consideration should be given to QA/QC samples to evaluate the potential impact of sample cross-contamination (e.g., field blanks).

SECTION 2 FIELD PROCEDURES

2.1 Pre-Mobilization Activities

2.1.1 Health and Safety Plan

Prior to each field event, the site health and safety plan should be reviewed and updated, as necessary. Health and safety plan requirements should be reviewed for consistency with this SOP and modified as appropriate to resolve any differences.

2.1.2 Laboratory Coordination

Field personnel should communicate with the laboratory that will conduct PFAS analysis regarding the following items:

- Laboratory accreditation for PFAS analysis (see Section 3.1);
- Appropriate sample containers, labels, and preservatives (see Sections 2.2.3 - 2.2.6);
- Sample storage conditions and holding time (see Section 2.2.7); and
- The number and type of QA/QC samples (see Section 2.3).

There is no standard United States Environmental Protection Agency nor NJDEP certified method for analyzing PFAS samples in media other than drinking water; therefore, commercial laboratories typically offer analysis of groundwater for a suite of approximately 24 PFAS using a modified version of Method 537 or recently published Method 537.1. Laboratories may have developed their own variations. Project staff may consider the impact of differences in reported PFAS concentrations and the potential value of collecting and sending a split sample to a second commercial laboratory to assess variability in reported PFAS concentrations.

2.2 Sampling

2.2.1 Pre-Sampling Activities

Prior to the sampling event, field staff should review information from previous groundwater monitoring events to inform their knowledge of well locations, field equipment, and field

conditions. Field staff should also identify upgradient wells and downgradient wells relative to potential source area wells. Wells with the lowest anticipated PFAS concentrations should be sampled first.

At the beginning of each sampling day, field staff should prepare for sampling as follows:

1. Inspect field equipment to ensure that it is in good working order;
2. Equipment should be decontaminated on site before work begins. Equipment decontamination should follow the steps outlined in Section 2.4; and
3. Calibrate analytical field meter(s) according to the instrument manufacturers' specifications. Record calibration results on the appropriate form(s). Instruments that cannot be calibrated should not be used.

2.2.2 Sampling PPE

Gloves: Disposable powder-free nitrile gloves should be worn at all times during sample collection and handling of sampling equipment.

At a minimum, field personnel should put on a new pair of nitrile gloves after the following activities:

- Handling samples, including QA/QC samples and blanks; and
- Handling sampling equipment.

At a minimum, personnel should (1) thoroughly wash their hands with detergent (preferably Alconox[®], Liquinox[®] or Luminox[®]) and PFAS-free water; (2) thoroughly dry their hands with paper towels; and (3) put on a new pair of nitrile gloves immediately before sampling, and after the following activities:

- Contact with a material potentially containing PFAS;
- Change in sampling locations;
- Breaks in work;
- Washroom breaks; and
- Exit and entry into the project site exclusion zone.

2.2.3 Sampling Equipment

Sample Containers: HDPE containers with screw caps are commonly used for sample collection. Different laboratories may supply sample containers of varying sizes. Sample container caps are typically unlined.

Preservatives: Field personnel should communicate with the laboratory to determine what, if any, sample preservatives will be used. Preservatives may include Trizma® or sodium thiosulfate to remove residual chlorine from chlorinated drinking water samples.

Pumps: A variety of pumps, including submersible pumps, bladder pumps, peristaltic pumps, or inertia pumps, may be used for groundwater sampling. The choice of sampling device should be based on site-specific and regulatory considerations, including well diameter, depth to groundwater, contaminant properties and purge rates. Regardless of the type of pump, the pump components, fittings, O-rings, sampling tubing, and other sampling equipment should not include Teflon™ or other PFAS-containing materials. Dedicated HDPE or silicon tubing is recommended for sampling each groundwater monitoring well.

Passive Diffusion Bag (PDB): Dual-membrane PDBs can be used to sample PFAS, provided they are supplied by EON Products of Snellville, GA. This method does not require any equipment to deploy beyond the PDB, weight, and tether. This method requires a three-week equilibration period and does not allow for measurement of analytical field parameters.

HydraSleeve: A HydraSleeve made with HDPE is deployed in the well and used to collect a grab sample. Samples can be collected within 24 hours of deployment. This method does not allow for measurement of analytical field parameters.

Analytical Field Meter(s): Water quality parameters commonly evaluated during sampling of groundwater monitoring wells include temperature, pH, conductivity, ORP, DO, and turbidity. Analytical field meters to measure these parameters should be free of Teflon™ and other PFAS materials (e.g., tubing, O-rings).

Water Level Meter: A water level meter is typically used to monitor drawdown during groundwater purging prior to sampling. Water level meters should be decontaminated prior to and after each sampling location using PFAS-free water, as described in Section 2.4.

2.2.4 Sample Collection via Pump

Container Rinsing: Sample containers should not be rinsed prior to sampling.

Well Purging and Sample Collection: If known, wells with the lowest PFAS concentrations should be sampled first and wells with the highest PFAS concentrations sampled last. If unknown, it is recommended that the wells with the lowest concentrations of known contaminants of concern be sampled first and the wells with the highest concentrations of known contaminants of concern be sampled last. Well purging and sample collection should be conducted in accordance with Geosyntec SOP 108 and the NJDEP Field Sampling Procedures Manual (NJDEP, 2005).

The following sampling method should be used:

1. Measure and record the static groundwater level using a water level meter;
2. Place the pump or bottom of the dedicated tubing into the well within the screened interval;

3. Secure the outlet of the tubing from the well to the influent of the analytical field meter;
4. Start the pump;
5. Adjust the purge rate to minimize and stabilize drawdown, as measured by the water level probe;
6. For sampling from NJDEP Site Remediation Program project Sites, the purge rate cannot exceed 500 ml/min.
7. If drawdown does not come under control at 100 ml/min, then a field decision should be rendered as to how far to allow drawdown to continue until sample collection. At no time should evacuation allow any portion of the well screen to be exposed (for wells screened below the water table) or bring the well to dryness. See section 6.9.2.3 in the NJDEP Field Sampling Procedures Manual for further information on situations involving drawdown.
8. Once drawdown is stable, start recording water quality parameters;
9. Routinely measure and record water level, temperature, pH, conductivity, ORP, DO, and turbidity throughout well purging at approximately 5-minute intervals. Record the parameters on a Groundwater Sampling Form;
10. Continue to measure and record the groundwater parameters until the parameters stabilize (three consecutive readings) which is defined as follows:
 - < 0.3ft Water level drawdown;
 - ± 0.1 units for pH;
 - $\pm 3\%$ for specific conductance;
 - $\pm 3\%$ for temperature;
 - $\pm 10\%$ for dissolved oxygen;
 - $\pm 10\%$ for values greater than 1 NTU turbidity;
 - a. ± 10 millivolts for ORP/Eh. At New Jersey sites, if stability has not been achieved after four hours of purging, the sampler may:
 - i. continue purging until stabilization occurs, no matter how long it takes;
 - ii. discontinue purging, do not collect a sample and document the attempts to reach stabilization; or
 - iii. discontinue purging, collect a sample and document the attempts to reach stabilization.
11. Disconnect the tubing from the analytical field meter;
12. Remove the cap from the sample container;

13. Place the sample container under the water stream. Fill the container to the level specified by the laboratory (samples do not need to be collected headspace free) and then turn off the pump;
14. Close the container by screwing on the cap; and
15. Using a paper towel, dry the outside of the sample container if necessary.
16. Decontaminate reusable equipment prior to proceeding to the next groundwater monitoring well location, as described in Section 2.4.

2.2.5 Sample Collection via Dual Membrane PDB

The dual-membrane PDB allows for collection of PFAS samples without purging the well. This reduces sampling time and investigation-derived waste. It is constructed of HDPE and a semi-permeable membrane that allows select dissolved constituents to pass through. The bottom two-thirds function by allowing the water inside the membrane to come to equilibrium with the water outside the membrane as dissolved constituents pass through the membrane. The top one-third, constructed of HDPE, allows water to pass freely through the sides. The top portion is open to the bottom portion, so that the concentrations of dissolved constituents too large to pass through the membrane can reach equilibrium as dissolved constituents pass between the top and bottom portions of the dual-membrane PDB. A three-week deployment period is needed to achieve equilibration.

Prior to field work the well depths and sample depths should be provided to the PDB manufacturer for preparation. The manufacturer will measure and cut each tether and will place rings on the tether at the sample depth for PDB attachment. Upon receipt everything should be inspected to ensure all dual-membrane PDBs and tethers are accounted for.

If known, wells with the lowest PFAS concentrations should be sampled first and wells with the highest PFAS concentrations sampled last. Sample containers should not be rinsed.

2.2.5.1 Dual-Membrane PDB Deployment

1. A modified field blank (MFB) is to be collected on the day of dual-membrane PDB deployment. Each MFB sample will be collected by using a new clean sampling straw supplied by the manufacturer to pierce a dual-membrane PDB blank supplied by the manufacturer and then allowing water to drain into the sample bottles.
2. Measure and record the static groundwater level using a groundwater elevation probe;
3. The depth to the bottom of the well (or top of sediment within the well) is measured to confirm that the sampler will be suspended at the correct height. If any differences are noted between measured depths and depths from well construction details, these differences should be noted on the field data sheets;
4. Don clean gloves and remove a dual-membrane PDB from the cooler;

5. Inspect the PDBs for the presence of air bubbles and leaks. PDBs having either bubbles or leaks shall not be used;
6. Attach a stainless-steel weight, provided by the manufacturer and decontaminated as described in Section 2.4, to the ring at the end of the well-specific pre-measured tether;
7. Attach the PDB to the well-specific pre-measured tether by running a manufacturer supplied zip-tie through the outer mesh surrounding the dual-membrane PDB and securely attaching it to the ring at the sample depth on the tether;
8. Slowly lower the dual-membrane PDB down the well until the stainless-steel weight is at the bottom of the well indicating that the sampler is properly positioned in the screened or open rock interval;
9. Secure the line to the casing of the well or, for a flush mounted well, the locking cap.
10. Close and lock the well.
11. Record the date, time and well name in the field records.

2.2.5.2 Dual-Membrane PDB Collection

Following a 21-day (minimum) sampling/equilibration period (i.e., time when the dual-membrane PDB is suspended in the well), dual-membrane PDBs are retrieved as follows:

1. Measure and record the static groundwater level using a groundwater elevation probe;
2. Remove the sample-filled dual-membrane PDB from the well using the attached tether;
3. Don clean gloves and use the straw provided by the manufacturer to pierce the bag and allow water to drain through the straw into the sample containers. Fill the container to the level specified by the laboratory (samples do not need to be collected headspace free). Close the container by screwing on the cap. Using a paper towel, dry the outside of the sample container if necessary;
4. Install a new PDB and return the tether to the well for another sampling period, or wrap and store the tether in a dedicated HDPE or LDPE bag until the next sampling event, or return the tether to the well until the next sampling event;
5. Close and lock the well after sampling activities are complete.

2.2.6 Sample Collection via HydraSleeve

The HydraSleeve groundwater sampler allows for collection of PFAS samples without purging the well. This reduces sampling time and investigation-derived waste. The HydraSleeve collects a whole water sample from the selected interval without mixing water from other intervals. This is accomplished via a check valve which keeps the HydraSleeve closed until the check valve is opened by rapid upward motion. When the HydraSleeve is full the valve collapses to prevent mixing. The

HydraSleeve can be retrieved as soon as the well re-equilibrates (water level in the well returns to the same level it was before the HydraSleeve was deployed), usually within a few hours.

Prior to field work the well depths and sample depths should be provided to the PDB manufacturer for preparation. The correct size HydraSleeve should be chosen to fit inside the well and allow for sufficient sample volume. Keep in mind that the HydraSleeve will need to be lowered below the desired sample interval in order to be pulled up through and collect the water in the desired interval. The manufacturer will measure and cut each tether and will place rings on the tether at the sample depth for HydraSleeve attachment. Upon receipt everything should be inspected to ensure all HydraSleeves and tethers are accounted for.

If known, wells with the lowest PFAS concentrations should be sampled first and wells with the highest PFAS concentrations sampled last. Sample containers should not be rinsed.

Procedure:

1. Record the initial water level in the well.
2. Remove HydraSleeve from package and grasp top to “pop” open.
3. Squeeze side fins together at top to bend reinforcing strips outward. Crimp the corners to remain open.
4. Attach the spring clip to the ring set at the sample depth on the tether. Then attach the spring clip to the HydraSleeve by squeezing the clip slightly and inserting the legs through the holes in the HydraSleeve.
 - a. Alternatively, if the spring clip is not being used, attach the line to one side of the HydraSleeve and be sure the top is sharply crimped open.
5. Align the two holes at bottom of HydraSleeve together and attach weight with the provided zip tie.
 - a. Note: a top weight can be used for shorter water columns to compress the HydraSleeve so that sample collection can begin at the lowest point possible.
6. Connect the top of the tether to the ring on the bottom of the well cap.
7. Lower the sampler in the well to the pre-determined depth.
8. Wait for the well to re-equilibrate. This is achieved when the water level in the well after deployment is the same as it was before deployment.
9. Collect the sample by pulling the HydraSleeve continuously upward at a constant 1-2 feet per second until full. For example, a 30-inch HydraSleeve needs a total upward movement of 30 inches to fill.
 - a. Note: it may be necessary to collect the sample via a cycling method. This is used if the diameter of the HydraSleeve is much smaller than the diameter of the well (for example a 2 inch HydraSleeve in a 4 inch well). To do this, pull the sampler up at 1-2 feet per second

for the length of the sampler and then let it drop back to the starting point. Repeat the cycle 3-5 times.

10. Once the HydraSleeve is out of the well, squeeze the full sampler just below the top to expel water resting above the flexible check valve. Fold the stiffeners over to make sure all of the water is off the top of the check valve.
11. Next, push the pointed discharge tube through the outer polyethylene sleeve as desired but at least 3-4 inches below the white reinforcing strips.
12. Discharge the sample into the container. Note: raising and lowering the bottom of the sampler or pinching the sample sleeve just below the discharge tube will control the flow of the sample.

2.2.7 Labeling

Labels: Some water-resistant inks may be potential sources of PFAS. PFAS-free container labels should be filled out using a ballpoint pen that does not have water-resistant ink, if possible. Field staff should try to avoid filling out container labels using felt pens and markers (e.g., certain Sharpie® products). Container labels should include the following information:

- A unique sample identifier;
- QA/QC sample type, if applicable;
- Sampling date and time (24-hour format);
- Sampler's name or initials; and
- Method of sample preservation.

Except for temperature blanks, all QC samples should be labeled and included on the CoC record. Duplicate samples should not be indicated as duplicates.

2.2.8 Sample Handling, Storage, and Shipment

Handling: Clean nitrile gloves should be worn when handling sample containers. Precautions should be taken to not drop or otherwise damage sample containers. Sample containers should **not** be placed in close proximity to a potential PFAS source.

Wet Weather Considerations: Field sampling during wet weather (e.g., rainfall and snowfall) should be conducted wearing appropriate clothing that does not pose a risk for cross-contamination. Field personnel should try to avoid water-resistant clothing and boots. Rain gear made of polyurethane, PVC, vinyl, or rubber is an acceptable alternative. Samples and sample containers should not be opened prior to sample collection to avoid collecting precipitation. Should samples or sample containers become contaminated with precipitation, they should be discarded.

Storage and Holding Times: Storage conditions and holding times should be determined by the laboratory. Measures should be taken to meet storage and holding time criteria (e.g., expedited shipping).

Shipment via Laboratory Courier: Sample containers should be packed for shipment using the following steps:

1. Choose a cooler with structural integrity that will withstand shipment.
2. Fill cooler at least one-third full with wet ice (try to avoid using chemical blue ice) in sealed bags.
3. Check that the caps on all sample containers are tight and will not leak.
4. Check that the sample labels are intact, filled out, legible, and that the sample identifier exactly matches the CoC record.
5. Place sample containers into the cooler with their caps upright.

Shipment via Fedex/UPS: Sample containers should be packed for shipment using the following steps:

1. Choose a cooler with structural integrity that will withstand shipment.
2. Secure and tape the drain plug with duct tape from the inside and outside.
3. Fill cooler at least one-third full with wet ice (try to avoid using chemical blue ice) double-bagged in sealed bags. Taping the ends of bags with duct tape will aid in waterproofing.
4. Check that the caps on all sample containers are tight and will not leak.
5. Check that the sample labels are intact, filled out, legible, and that the sample identifier exactly matches the CoC record.
6. Seal each sample container in a sample bag to prevent melt water from getting into the sample or degrading the sample label.
7. Place sample containers into the cooler with their caps upright.
8. Fill excess space within the cooler with bubble wrap (try to avoid using paper, cardboard, or polystyrene foam).
9. Seal the entire cooler with duct tape, particularly the lid, to prevent leaks.

Ship samples as non-hazardous material unless the samples meet the established Department of Transportation (DOT) criteria for a “hazardous material” or the International Air Transport Association (IATA)/International Civil Aviation Organization (ICAO) for air definition of “dangerous goods.” If the samples meet criteria for hazardous materials or dangerous goods, then DOT and IATA/ICAO regulations must be followed. Prior to shipping samples, field personnel should complete the appropriate air waybill or manifest. A copy of the air waybill or manifest should be kept for recordkeeping.

2.3 Sampling QA/QC

2.3.1 Field Duplicates

Field duplicates are samples collected in the same manner and at the same time and location as a primary sample. They should be collected from locations of known or suspected contamination. Field duplicates are used to assess field and analytical precision and sample heterogeneity. Typically, at least one field duplicate is collected for every 20 primary samples. Field duplicates should be labeled with a unique sample identifier and not be indicated as a duplicate (i.e., submitted as “blind”). The parent sample for each field duplicate must be recorded in the field notes.

2.3.2 Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike and matrix spike duplicate (MS/MSD) samples are aliquots of environmental samples that are spiked with a known concentration of PFAS by the laboratory. MS/MSD samples are used to assess interferences caused by the sample matrix. MS/MSD samples are not needed if the analytical laboratory is using an isotopic dilution method but are technically required to meet Department of Defense (DoD) accreditation requirements, if this accreditation is required by the project. If necessary, MS/MSD samples are to be collected in the same manner and at the same time and location as a primary sample (i.e., additional sample volume). It is preferred that this location have little to no PFAS contamination. Samples should have the same matrix to ensure a valid result; if the samples do not appear visually similar (e.g., discoloration, suspended solids), choose another location for collection of MS/MSD samples. The number of required MS/MSD samples should be determined based on discussions with the laboratory. Typically, at least one MS/MSD sample is collected for every 20 primary samples. MS/MSD samples should be labeled with the same sample name and time as the primary sample and denoted as MS/MSD samples on the CoC and sample label.

2.3.3 Blanks

Blanks should be shipped and handled in the same manner as environmental samples. Field blanks should be labeled as such on sample bottles and on the CoC. The number and type of blanks should be determined by discussions with the laboratory.

Equipment Blanks: Equipment blanks are used to assess sources of field and laboratory contamination. Equipment blanks are prepared by pouring PFAS-free water over or through decontaminated reusable field sampling equipment and collecting the rinsate in a sample container. Typically, one equipment blank is collected every day samples are collected.

Field Blanks: Field blanks are used to assess ambient contamination within the field and laboratory. Field blanks should be prepared by filling a sample container with PFAS-free water in the field in the same manner as environmental samples. Field blanks are an effective way of assessing potential cross-contamination as a result of sample handling. Typically, one field blank is collected every day samples are collected.

Modified Field Blank: A MFB sample will be collected at the time of deployment of the dual-membrane PDBs. The MFB sample will be analyzed for PFAS using the same method as the samples.

Temperature Blanks: Temperature blanks are used to assess the temperature of samples during shipping. Temperature blanks should be provided by the laboratory and prepared by filling a sample container with PFAS-free water prior to shipment of the sample containers. The blank should be kept in the cooler during sampling and shipment to the laboratory. Once the cooler returns to the laboratory, the temperature of the blank should be measured to ensure that recommended sample storage criteria are met (typically less than 6 degrees Celsius).

2.4 Decontamination

Decontamination should occur prior to leaving the sampling area or at a central decontamination location and at the end of each work day. Additionally, sampling equipment exposed to PFAS-contaminated water should be decontaminated between sample locations.

Alconox[®], Liquinox[®] and Luminox[®] detergents are acceptable for decontamination purposes. Use of commercial Decon 90 should be avoided. Decontamination wastes must be properly contained and disposed of in accordance with applicable local, state and federal regulations.

2.4.1 Field Equipment Decontamination

All non-disposable sampling equipment that is in contact with groundwater (e.g., field probes) must be cleaned prior to and between uses at each groundwater sampling location according to the following procedures:

1. Remove any gross (e.g., soil) contamination from sampling equipment.
2. If heavy petroleum residuals are encountered during sampling, use methanol or another appropriate solvent to remove any residues from sampling equipment.
3. Wash water-resistant equipment thoroughly and vigorously with potable water containing detergent (Alconox[®], Liquinox[®] or Luminox[®]) using a bristle brush or similar utensil to remove any remaining residual contamination.
4. Rinse equipment thoroughly with potable water (1st rinse).
5. Rinse equipment thoroughly with PFAS-free water (2nd rinse).
6. For field instruments, rinse again with PFAS-free water by pouring water over the equipment (3rd rinse).
7. Dry wet equipment with a paper towel or leave the equipment to air dry in a location away from dust or fugitive contaminants. All equipment should be dry before reuse.

Cleaning and decontamination of the equipment should be accomplished in stages and in such a way that the contamination does not discharge into the environment. Dedicated or disposable sampling equipment should be considered to minimize the need for decontamination.

2.4.2 Personnel and PPE Decontamination

A decontamination area for personnel and portable equipment may be specified in the health and safety plan. The area may include basins or tubs to capture decontamination wastes, which can be transferred to larger containers as necessary. Decontamination following groundwater monitoring well sampling should follow these steps:

1. Gross (e.g., soil) contamination should be scraped and wiped from boots, safety glasses, hardhats, reflective vests, and other reusable PPE. Once gross contamination has been removed, gloves should be removed by rolling off the hands in such a way to avoid exposing skin to PFAS-contaminated materials;
2. A new pair of gloves should be put on and reusable PPE should be decontaminated using PFAS-free water mixed with detergent (preferably Alconox[®], Liquinox[®] or Luminox[®]) and brushes, or similar means. After debris is removed, reusable PPE should be rinsed with PFAS-free water; and
3. Hands and any exposed body parts should be washed thoroughly using detergent (preferably Alconox[®], Liquinox[®] or Luminox[®]) and PFAS-free water. Hands should be dried with paper towels.

2.5 Food and Drink

Food and drink should not be brought within the exclusion zone. Food that is kept in the staging area should preferably be contained in HDPE or stainless-steel containers.

SECTION 3 LABORATORY PROCEDURES

3.1 Accreditations

All samples will be analyzed at a laboratory that is accredited by the National Environmental Laboratory Accreditation Program (NELAP) accredited for their state and that PFAS analytical methods follow state guidelines. There is not currently a NELAP certification program for the analysis of PFAS compounds other than those in drinking water. The samples for PFAS compounds will be performed using a modified USEPA Method 537 approach at a laboratory that has NELAP certification for PFOA and PFOS in drinking water.

SECTION 4 DOCUMENTATION

4.1 Chain of Custody

4.1.1 Field Custody Procedures

A sample is considered to be in custody if the following conditions have been observed:

- It is in possession or view of the person responsible for custody;
- It is locked in a secure area;
- It is placed in an area restricted to authorized personnel; or
- It is placed in a container and secured with an official seal, so that the sample cannot be reached without breaking the seal.

The following practices should be observed by field personnel to ensure sample custody:

- As few persons as possible will handle samples;
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to the laboratory;
- The sample collector will record sample data in the field notebook; and
- Sample labels will be completed for each sample.

4.1.2 Chain of Custody Record

All samples should be accompanied by a CoC record. The CoC record is typically provided by the laboratory. The CoC record should be fully completed and a copy of the form obtained (either a scan or photograph) ~~in duplicate (e.g., a carbon copy)~~. The CoC form is intended as a legal record of possession of the sample. At the minimum, the following information should be included on a CoC record:

- Project name and number;
- Laboratory name and address;
- Name of person that collected the samples;
- Sample identifier;
- Sample date and time (time in 24-hour format);
- Laboratory analysis requested;
- Preservatives added to each sample;
- Sample matrix (e.g., soil, water);
- Number of containers per sample; and
- Airway bill tracking number.

As applicable, the following remarks should be added to the CoC record:

- Contractor name and address;

- MS/MSD sample volume (if necessary);
- A request for rapid turnaround time; and
- A note regarding the potential concentrations in a highly-contaminated sample.

Indication of a duplicate sample should **not** be included on a CoC record.

4.1.3 Sample Packaging

The CoC record should accompany all sample shipments. One CoC record should be prepared for each cooler and the cooler number recorded on the CoC. The samples in the cooler should be listed on the CoC record. The CoC record should be placed in a sealed plastic bag (e.g., Ziploc®) and taped to the inside lid of the cooler. If one sample is contained in two coolers (i.e., one sample has too many containers to fit in one cooler), then the original CoC should be placed in the first cooler and a copy of the CoC record should be placed in the second cooler. A photograph or scan of the CoC record should be retained by the sampler.

Custody seals should be signed and dated at the time of use. Sample shipping containers should be sealed in as many places as necessary to ensure that the container cannot be opened without breaking a custody seal. Tape should be placed over the seals to ensure that seals are not accidentally broken during shipment. If the sampler transports the samples to the laboratory without sample shipment, custody seals are not required.

4.1.4 Transfer of Custody

When transferring the possession of samples from the field sampler to any other party, including a transporter or to the laboratory, the sampler should sign, date, and note the time as “relinquished by” on the CoC record. The receiver should also sign, date, and note the time as “received by” on the CoC record. The date and time of the receiver and relinquisher should be the same. Samples with CoC forms should not be left in unsecured areas. If left in the reception area and the person responsible for sampling will not be available when a laboratory courier will be transporting the samples, then the samples must be relinquished to someone in the office who will be present.

When samples are transported by a commercial carrier, the carrier will not sign the CoC record. However, the airway bill tracking number should be recorded on the CoC record. Airway bills should also be retained with the CoC record as documentation of transport. For this reason, the date and time of the receiver and relinquisher will not match when shipping with a commercial carrier.

4.1.5 Laboratory Custody Procedures

A designated laboratory sample custodian should accept custody of the shipped samples and verify that the sample identification number matches the CoC record. Pertinent information about shipment, pickup, and courier should be entered in the “Remarks” section. The temperature of the temperature blanks at the time of receiving should be noted on the CoC record.

Attachment A. Daily Sampling Checklist

Date: _____

Site Name: _____

Weather (*temperature/precipitation*): _____

Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.

Field Clothing and PPE:

- ☐ No water-, flame-, or stain-resistant boots or clothing (e.g., GORE-TEX®)
- ☐ Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather
- ☐ Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
- ☐ Clothing has not been recently laundered with a fabric softener
- ☐ No coated HDPE suits (e.g., coated Tyvek® suits)
- ☐ Field crew has not used cosmetics, moisturizers, or other related products today
- ☐ Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free

Field Equipment:

- ☐ Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
- ☐ Sample caps are made of HDPE or polypropylene and are not lined with Teflon™
- ☐ No materials containing Teflon™, Viton™, or fluoropolymers
- ☐ No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
- ☐ No plastic clipboards, binders, or spiral hard cover notebooks
- ☐ No waterproof field books
- ☐ No waterproof or felt pens or markers (e.g., certain Sharpie® products)
- ☐ No chemical (blue) ice
- ☐ No aluminum foil
- ☐ No sticky notes (e.g., certain Post-It® products)

Decontamination:

- ☐ Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse
- ☐ “PFAS-free” water is on-site for decontamination of field equipment
- ☐ Alconox®, Liquinox® or Luminox® used as decontamination detergent

Food and Drink:

- ☐ No food or drink on-site, except within staging area
- ☐ Food in staging area is contained in HDPE or stainless steel container

Notes:

Field Team Leader Name (Print): _____

Field Team Leader Signature: _____

Date/Time: _____

STANDARD OPERATING GUIDELINE FOR DISSOLVED OXYGEN (DO) CALIBRATION

Geosyntec NJDEP Lab Certification Number: 11022

DATE PREPARED: 12/13/05

DATE REVISED: 04/24/18

SUMMARY:

This is the Standard Operating Guideline (SOG) to be used for the determination of dissolved oxygen in groundwater. This procedure is to be performed by qualified analysts in the field using rented field equipment. The owner of the equipment is responsible for its general care and maintenance. The analyst using this equipment in the field is responsible for calibration and inspection for potential defects in the equipment prior to use. Defective equipment will be returned to the owner and replaced with a new rental. Calibration procedures are to be conducted on the site where the groundwater is to be measured prior to the commencement of groundwater sampling.

EQUIPMENT:

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent

METHOD REFERENCE:

Standard Methods for the Examination of Water and Wastewater 4500-O G-11

MAINTENANCE:

Regular maintenance is to be conducted as specified by the manufacturer and owner of equipment. If defects are found in equipment during use, it will be returned to the owner. Equipment will be inspected for defects upon receipt, prior to calibration, and periodically during sampling. The membrane of the DO probe should be inspected prior to each use. If there is any indication that the membrane is worn, torn, has bubbles under it or other material, it will be re-conditioned.

Re-conditioning the DO probe consists of the following procedure*:

1. Install the sonde in the stand with the probes facing up. Do not remove the probe.
2. Put enough solution on the tip of the probe so there is a meniscus.

3. Stretch the membrane over the probe so there are little to no wrinkles in the o-ring seat.
4. Trim the excess membrane to 1/8" from the o-ring. Don't trim right up to the o-ring seat. The membrane will relax over time.
5. Allow the probe to sit in clean water for at least ½ hour to "burn-in". Do not soak in de-ionized water (because this practice is not good for the pH probe).

*The DO membrane on the YSI 556 model is to be replaced by switching the membrane unit with a new unit.

The YSI sonde and probes will be cleaned prior to calibration and use by rinsing with distilled/deionized (DI) water. If contamination or particulate matter is present, a mild detergent will also be used (i.e. alconox).

CALIBRATION STANDARD:

DO calibration is to be conducted by performing a Winkler titration on a weekly basis when DO measurements are made. This procedure shall be performed for each instrument used for the week that it is used in the field. A Winkler Titration is to be performed by US Environmental or equivalent rental company (NJDEP lab certified). DO calibration and Winkler titration will be performed by US Environmental Rental Corporation (US ENV) by following US ENV's SOP titled "Calibration of Dissolved Oxygen sensors for Rental Water Quality Meters" effective 2/21/2012 as attached in this document as Attachment C. All documentation including the date of calibration, name of the analyst performing the calibration, as well as calibration results should be provided by the rental company and retained by the field analyst. Daily DO calibration checks to 100 percent DO saturation and DO check to zero mg/L are to be performed by the field analyst using air saturated water and calibration solutions respectively as described below:

CALIBRATION PROCEDURE (or as specified in site-specific NJDEP approved Work Plan):

Field personnel will check the calibration of field probes consistent with the manufacturer's specifications and the following requirements before sampling:

1. The meter is calibrated daily (at a minimum) prior to field use.
2. For DO calibration, the calibration cup will be rinsed with DI water (a minimal amount or a moist sponge should be left in the bottom of the cell to provide moist air (100% humidity) for calibration; be sure that the tip of the probe is not touching the sponge and is free of water droplets).
3. The calibration cup will be allowed to equilibrate for ten to fifteen minutes.
4. Turn the display unit on by pressing the green power button.
5. Use the arrow buttons to highlight Sonde Menu and press enter.
6. Select Calibrate and press enter.
7. Select DO% and press enter.
8. The screen will read "Enter Barometric Pressure mmHg".
9. The 650 MDS display is equipped with a barometer and the current reading will appear in the box. If the display does not have a barometer, enter a local reading or standard pressure (760 mmHg).
10. Once the desired pressure has been entered, press enter.
11. Observe the DO and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".

12. The DO will calibrate to 100% saturation.
13. Record all calibration results on the calibration log.

ZERO DO CALIBRATION CHECK

Field personnel will check the calibration of the field probe by checking the probe with a zero DO solution after calibration. All zero DO checks will be performed prior to use of field equipment each day consistent with the manufacturer's specifications and the following requirements before sampling:

1. After calibration, the meter will be checked to zero DO solution once per day prior to use.
2. Turn the display on by pressing the green power button.
3. Select Sonde run menu.
4. Open the provided zero DO solution (sodium sulfite solution) provided by the rental company.
5. Pour the zero DO solution into calibration cup of the Sonde and attach to the YSI unit.
6. Allow the unit to stabilize for 5 to 15 minutes.
7. Record all calibration check results on the calibration log.

PERCENT DO CALIBRATION CHECK:

Calibration checks will be performed as needed by site-specific sampling procedures and daily after sampling is completed. Initial calibrations and calibration check data will be recorded on the field calibration record provided in Attachment B.

DAILY DUPLICATE

When conducting analysis other than low-flow sampling, a daily duplicate must be taken for pH, specific conductance, and DO measurements at a rate of 1 per 20 measurements. The daily duplicate should be taken within 15 minutes of the field reading and recorded on the DFR or on the form being used for recording the water quality measurements. The acceptance range for DO is within ± 1.5 mg/L or $\pm 20\%$ calculated relative percent difference.

Relative Percent Difference Calculation:

$$[(\text{Field value} - \text{Duplicate value}) / \text{Field value}] * 100 = \text{Relative Percent Difference}$$

NOTE:

The calibration of DO must always be conducted following a calibration of specific conductance.

Approval Signatures		
Manager/Lead Technical Director		Date:
Quality Assurance Officer		Date:



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SOG #NJ2

STANDARD OPERATING GUIDELINE FOR SPECIFIC CONDUCTANCE CALIBRATION

GeoSyntec NJDEP Lab Certification Number: 11022

DATE PREPARED: 12/13/05

DATE REVISED: 04/24/18

SUMMARY:

This is the Standard Operating Guideline (SOG) to be used for the determination of specific conductance in groundwater. This procedure is to be performed by qualified analysts in the field using rented field equipment. The owner of the equipment is responsible for its general care and maintenance. The analyst using this equipment in the field is responsible for calibration and inspection for potential defects in the equipment. Defective equipment will be returned to the owner and replaced with a new rental. Calibration procedures are to be conducted on the site where the groundwater is to be measured prior to the commencement of groundwater sampling.

EQUIPMENT:

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent

METHOD REFERENCE:

SM 2510 B-11

MAINTENANCE:

Regular maintenance is to be conducted as specified by the manufacturer and owner of equipment. If defects are found in equipment during use, it will be returned to the owner. Equipment will be inspected for defects upon receipt, prior to calibration, and periodically during sampling. If there is any indication that the equipment is broken or malfunctioning, it will be replaced or returned to the rental company for replacement.

The YSI sonde and probes will be cleaned prior to calibration and use by rinsing with distilled/deionized (DI) water. If contamination or particulate matter is present, a mild detergent will also be used (i.e. alconox).

CALIBRATION STANDARD:

Specific Conductance solution of 1.000 or 1.413 mS/cm will be supplied by the equipment provider. The equipment will also provide a reference for the initial five-point calibration and cell constant check completed by the rental company, and this information shall be copied and maintained in a file.

CALIBRATION PROCEDURE (or as specified in site-specific NJDEP approved Work Plan):

Field personnel shall check the calibration of field probes consistent with the manufacturer's specifications and the following requirements before sampling:

1. The meter is calibrated daily (at a minimum) prior to field use.
2. Turn the display unit on by pressing the green power button.
3. Rinse the calibration cup and probes with a small amount of the calibration standard being used.
4. Fill the calibration cup with conductivity standard and attach to the sonde, making sure to cover the vent hole at the top of the conductivity probe; also ensure there are no air bubbles in the conductivity probe.
5. Use the arrow buttons to highlight Sonde Menu and press enter.
6. Select Calibrate and press enter.
7. Select Conductivity and press enter.
8. Select SpCond and press enter.
9. The screen will read, "Enter SpCond mS/cm".
10. Enter the correct concentration of the conductivity solution that you are using (the specific conductance probe will be calibrated using one point solution (1.000 or 1.413 mS/cm)), and press enter.
11. Observe the specific conductivity reading. (Note: if the conductivity reading is jumping frequently, every 4 seconds, the DO probe may need to be re-conditioned as the conductivity probe will read the DO pulse if there is a hole in the DO membrane or wrinkles in the o-ring seat.)
12. When the conductivity and temperature readings are stable, press enter. The top of the screen will read, "calibrated".
13. Ensure that the calibrated reading is within 1% of the standard (for a solution of 1.000 mS/cm, this corresponds to a range of 0.990 mS/cm to 1.010 mS/cm; for a solution of 1.413mS/cm this corresponds to a range of 1.399 nS/cm to 1.427). If the reading is not accurate to within 1% of the standard, then recalibrate the instrument.
14. Record all calibration results on the calibration log.
15. Remove the probes from the conductivity solution. Rinse the probes with DI water and gently dry them with a paper towel.
16. If calibration was required, a post-calibration check must be performed in the Sonde Run screen. The stabilized check reading should be within 1% of the standard concentration. If the check reading falls outside that range, then re-calibrate the meter following steps 3-13 above.

CALIBRATION CHECK:

An initial calibration will be conducted at the start of each day prior to sampling the groundwater. If the meter requires calibration, the calibration will be checked in the Sonde Run screen. If the check reading is outside the 1% range, the meter must be re-calibrated. Additional calibration checks will be performed as needed by site-specific sampling procedures. Initial calibrations and calibration check data will be recorded on the field calibration record provided in Attachment B.

DAILY DUPLICATE

When conducting analysis other than low-flow sampling, a daily duplicate must be taken for pH, specific conductance, and DO measurements at a rate of 1 per 20 measurements. The daily duplicate should be taken within 15 minutes of the field reading and recorded on the DFR or on the form being used for recording the water quality measurements. The acceptance range for specific conductance is within $\pm 20\%$ calculated relative percent difference.

Relative Percent Difference Calculation:

$[(\text{Field value} - \text{Duplicate value}) / \text{Field value}] * 100 = \text{Relative Percent Difference}$

NOTE:

The calibration of dissolved oxygen must always be conducted following the calibration of specific conductance.

Approval Signatures		
Manager/Lead Technical Director		Date:
Quality Assurance Officer		Date:



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SOG #NJ3

STANDARD OPERATING GUIDELINE FOR TEMPERATURE CALIBRATION

Geosyntec NJDEP Lab Certification Number: 11022

DATE PREPARED: 12/13/05

DATE REVISED: 04/09/18

SUMMARY:

This is the Standard Operating Guideline (SOG) to be used for the determination of temperature in groundwater. This procedure is to be followed by qualified analysts in the field using rented field equipment. The owner of the equipment is responsible for its general care and maintenance. The analyst using this equipment in the field is responsible for inspection for potential defects in the equipment. Defective equipment will be returned to the owner and replaced with a new rental.

EQUIPMENT:

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent

METHOD REFERENCE:

Standard Methods for the Examination of Water and Wastewater 2550 B-0010

MAINTENANCE:

Regular maintenance is to be conducted as specified by the manufacturer and owner of equipment. If defects are found in equipment during use, it will be returned to the owner. Equipment shall be inspected for defects upon receipt, and periodically during sampling. If there is any indication that the equipment is broken or malfunctioning, it will be replaced or returned to the rental company for replacement.

The YSI sonde and probes will be cleaned prior to use by rinsing with distilled/deionized (DI) water. If contamination or particulate matter is present, a mild detergent will also be used (i.e. alconox).

METER CALIBRATION:

The instrument to be used should be calibrated quarterly using a NIST certified thermometer that is graded in 0.2 degree Celsius increments. Meter calibration is to be performed by the rental company (NJDEP lab certified) prior to use in the field. All documentation including the date of calibration, name of the analyst performing the calibration, NIST thermometer identification number, as well as calibration results should be provided by the rental company and retained by the field analyst. These documents are

to be reviewed by the field analyst prior to use of the instrument to ensure the accuracy of the calibration results. Upon review of the calibration results, the field analyst should apply a correction factor to the data when necessary.

Approval Signatures		
Manager/Lead Technical Director		Date:
Quality Assurance Officer		Date:



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SOG #NJ4

STANDARD OPERATING GUIDELINE FOR TURBIDITY CALIBRATION

Geosyntec NJDEP Lab Certification Number: 11022

DATE PREPARED: 12/13/05

DATE REVISED: 04/24/18

SUMMARY:

This is the Standard Operating Guideline (SOG) to be used for the determination of turbidity in groundwater. This procedure is to be performed by qualified analysts in the field using rented field equipment. The owner of the equipment is responsible for its general care and maintenance. The analyst using this equipment in the field is responsible for calibration and inspection for potential defects in the equipment. Defective equipment will be returned to the owner and replaced with a new rental. Calibration procedures are to be conducted on the site where the groundwater is to be measured prior to commencement of groundwater sampling.

EQUIPMENT:

YSI 650MDS with 6920, or 6820 sonde; LaMotte 2020; Hach 2100Q or equivalent

METHOD REFERENCE:

SM 2130B-11

MAINTENANCE:

Regular maintenance is to be conducted as specified by the manufacturer and owner of equipment. If defects are found in equipment during use, it will be returned to the owner. Equipment shall be inspected for defects upon receipt, prior to calibration, and periodically during sampling. If there is any indication that the equipment is broken or malfunctioning, it will be replaced or returned to the rental company for replacement.

The YSI sonde and probes will be cleaned prior to calibration and use by rinsing with distilled/deionized (DI) water. If contamination or particulate matter is present, a mild detergent will also be used (i.e. alconox).

The Hach 2100Q or similar meter does not need to be cleaned but must be inspected for any defects. It is imperative that water be kept out of the turbidimeter light chamber (special attention is required to avoid putting wet tubes in the light chamber).

CALIBRATION STANDARDS:

Turbidity standard solutions of 10, 20, 100, and 800 NTU (Hach 2100Q), 1, and 10 NTU (LaMotte) and 0 and 126 NTU (YSI 6820 and 6920) will be provided by the equipment supplier and identification numbers shall be recorded.

CALIBRATION PROCEDURE (YSI or similar or as site Work Plan specifies):

Field personnel will check the calibration of field probes consistent with the manufacturer's specifications and the following requirements before sampling:

1. The meter is calibrated daily (at a minimum) prior to field use and a calibration check is conducted after each calibration and at the end of day..
2. Place ~225 ml 0 NTU calibration standard in the calibration cup and screw the cup onto the sonde, being careful to engage only 1 thread. This ensures that the bottom of the turbidity sensor will not scratch against the bottom of the cup.
3. Turn the display unit on by pressing the green power button.
4. Use the arrow buttons to highlight Sonde Menu and press enter.
5. Select Calibrate and press enter.
6. Select Turbidity and press enter.
7. Select the number of calibration points, 2, and press enter (the turbidity probe will be calibrated using two points (0 and 126 NTU)).
8. Enter the first calibration solution, 0 NTU.
9. Observe the turbidity and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".
10. Record all calibration results and calibration lot numbers on the calibration log.
11. Press enter once.
12. Remove the probes from the 0 NTU solution, rinse with DI water, and gently dry with a paper towel.
13. Enter the 2nd calibration solution, 126 NTU. Note: When using AMCO-AEPA standards, the value entered by the user during the calibration protocol is DIFFERENT depending on which YSI turbidity sensor (Legacy 6026 or Current 6136) is being calibrated. This effect is likely due to the larger optical cell volume of the 6136. For example, the label of the YSI 6073 turbidity standard indicates that the value of the standard is 100 NTU when used for calibration of the 6026 sensor, but 126 NTU when used to calibrate the 6136 sensor.
14. Place the probes in the 126 NTU solution.
15. Observe the turbidity and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".
16. Ensure that the calibrated reading is within 10% of the standard (when calibrating to 126 NTU, a range of 113-139 is acceptable). If the reading is not accurate to within 10% then recalibrate the instrument.
17. Record all calibration results and calibration lot numbers on the calibration log.
18. Press enter once.
19. Remove the probes from the 126 NTU solution, rinse with DI water, and gently dry with a paper towel.

20. To perform the post calibration check, navigate to the Sonde main screen, highlight Sonde Run and press Enter.
21. Submerge the probes in the 126 NTU solution or 12.7 NTU solution if provided.
22. Observe the turbidity readings. When they are stable, ensure that the turbidity reading is within **10%** of the turbidity standard (for the 126 NTU standard a range of 113.4 – 138.6 is acceptable, for the 12.7 NTU standard a range of 11.4-14.0 is acceptable).
23. Record all calibration check results on the calibration log.

CALIBRATION PROCEDURE (Hach or similar or as site Work Plan specifies):

Field personnel will check the calibration of field instrumentation consistent with the manufacturer's specifications and the following requirements before sampling:

1. The meter is calibrated daily (at a minimum) prior to field use, and a calibration check is conducted after each calibration and at the end of day.
2. Gather the necessary calibration solutions included in the case. Invert each calibration solution 10 times.
3. Wipe the tube of selected calibration solution clean. It is important to use the proper test tubes and to assure the tubes are clean and free from fingerprints, lint, dried spills and significant scratches. A mild detergent may be used to remove dirt or fingerprints. Use lint free tissues to wipe your tubes clean.
4. Turn on the meter and press the "StablCal®" button to enter the calibration menu.
5. Follow the instructions displayed on the screen by inserting the first calibration solution of 20 NTU.
6. Open lid of meter and insert the tube into the chamber by aligning the indexing arrow on the tube with the indexing arrow mark on the meter.
7. Close the lid and push "READ"
8. Repeat steps 5, 6 and 7 for calibration solutions of 100 and 800 NTU.
9. Push "DONE" to complete the 3 point calibration and to review results.
10. Record all calibration results and calibration lot numbers on the calibration log.
11. Upon completion of the "StablCal®" calibration, the meter will automatically enter the Verify Cal mode.
12. Complete the verification by using the calibration solution of 10 NTU.
13. Open lid of meter and insert tube into chamber by aligning the indexing arrow on the tube with the indexing arrow mark on the meter.
14. Close the lid and push "READ"
15. Record the verification result and 10 NTU lot number on the calibration log.
16. If the calibration solution of 10 NTU does not pass verification repeat the "StablCal®". If the meter repeatedly fails verification use a different meter.

CALIBRATION PROCEDURE (LaMotte 2020 or similar or as site Work Plan specifies):

Field personnel will check the calibration of field instrumentation consistent with the manufacturer's specifications and the following requirements before sampling:

1. The meter is calibrated daily (at a minimum) prior to field use, and calibration check is conducted after each calibration and at the end of day.
2. Gather the necessary calibration solutions included in the case. Invert each calibration solution 10 times.

3. Wipe the tube of selected calibration solution clean. It is important to use the proper test tubes and to assure the tubes are clean and free from fingerprints, lint, dried spills and significant scratches. A mild detergent may be used to remove dirt or fingerprints. Use lint free tissues to wipe your tubes clean.
4. Open the lid of the meter. Align the indexing arrow mark on the tube with the indexing arrow mark on the meter and insert the tube into the chamber.
5. Close the lid. Push the Read button. If the displayed value is not the same as the value of the selected standard (within the specification limits) continue with the calibration procedure.
6. Push the Cal button for 5 seconds until Cal is displayed. Release button. The display will flash. Adjust the display with the Up and Down buttons until the value of the standard is displayed.
7. Push the Cal button again to save the calibration. The 2020 display will stop flashing. Record all calibration results and calibration lot numbers on the calibration log.
8. Repeat steps 3-7 with the second calibration standard.
9. To perform the post calibration check, use the 10 NTU standard. Align the indexing arrow mark on the tube with the indexing arrow mark on the meter and insert the tube into the chamber.
10. Push the Read button.
17. Record the verification result and 10 NTU lot number on the calibration log.
11. If the calibration solution of 10 NTU is outside the $\pm 10\%$ acceptance range (9 – 11 NTU) re-calibrate the meter.

CALIBRATION CHECK:

An initial calibration will be conducted at the start of each day prior to sampling the groundwater. Calibration checks will be performed after the initial calibration and as needed by site-specific sampling procedures. If the instrument fails the calibration check (value falls outside 10% range), then the instrument will be calibrated again. The calibration check for the Hach 2100Q and LaMotte 2020 meters will be performed with the 10 NTU standard (acceptance criteria range: 9-11). The calibration check for the YSI 6820 and 6920 will be performed with the 126 NTU standard (acceptance criteria range: 113.4 - 138.6) or the 12.7 NTU standard (acceptance criteria range: 11.4-14.0), if provided. Initial calibrations and calibration check data will be recorded on the field calibration record provided in Attachment B.

Approval Signatures		
Manager/Lead Technical Director		Date:
Quality Assurance Officer		Date:

STANDARD OPERATING GUIDELINE FOR pH CALIBRATION

Geosyntec NJDEP Lab Certification Number: 11022

DATE PREPARED: 12/13/05

DATE REVISED: 04/24/18

SUMMARY:

This is the Standard Operating Guideline (SOG) to be used for the determination of pH in groundwater. This procedure is to be performed by qualified analysts in the field using rented field equipment. The owner of the equipment is responsible for its general care and maintenance. The analyst using this equipment in the field is responsible for calibration and inspection for potential defects in the equipment. Defective equipment will be returned to the owner and replaced with a new rental. Calibration procedures are to be conducted on the site where the groundwater is to be measured prior to the commencement of groundwater sampling.

EQUIPMENT:

YSI 650MDS with YSI 600 XL/XLM, 6920, or 6820 sonde; YSI 556; or equivalent

METHOD REFERENCE:

Standard Methods for the Examination of Water and Wastewater 4500-H B-11

MAINTENANCE:

Regular maintenance is to be conducted as specified by the manufacturer and owner of equipment. If defects are found in equipment during use, it will be returned to the owner. Equipment shall be inspected for defects upon receipt, prior to calibration, and periodically during sampling. If there is any indication that the equipment is broken or malfunctioning, it will be replaced or returned to the rental company for replacement.

The YSI sonde and probes will be cleaned prior to calibration and use by rinsing with distilled/deionized (DI) water. If contamination or particulate matter is present, a mild detergent will also be used (i.e. alconox).

CALIBRATION STANDARDS (or as specified by site specific Work Plan):

A three-point calibration using pH (4, 7, and 10 standard solutions) must be conducted. pH standard solutions of 4,7, and 10 will be provided by the equipment supplier. The identification numbers of the standard solutions will be recorded.

CALIBRATION PROCEDURE (or as specified in site-specific NJDEP approved Work Plan):

Field personnel will check the calibration of field probes consistent with the manufacturer's specifications and the following requirements before sampling:

INITIAL CALIBRATION

1. Meter calibration will be performed at the beginning of each day of use.
2. Turn the display unit on by pressing the green power button.
3. Use the arrow buttons to highlight Sonde Menu and press enter.
4. Select Calibrate and press enter.
5. Select pH and press enter.
6. Select the number of calibration points, 3, and press enter (the pH probe will be calibrated using three points (pH = 4,7, and 10)).
7. The screen will read, "Enter 1st pH". Starting with the 4.0 pH buffer, check the temperature correction chart, located below and on the calibration form, and find the value that corresponds with the current temperature of the buffer solutions. Enter this number on the screen. Example: if the buffer solution is at 30C, the temperature corrected value is 4.01. 4.01 should be entered on the screen.
8. Press enter (the pH 4 solution will be placed in the calibration cup first).
9. Observe the pH and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".
10. Ensure that the calibrated reading is within **0.05** pH units of the standard (when calibrating to pH 4, a range of 3.95-4.05 is acceptable). If the reading is not accurate to within **0.05** pH units then restart the calibration procedure.
11. Record all calibration results on the calibration log.
12. Press enter once.
13. Remove the probe from the pH 4 solution.
14. Rinse the probes with DI water and gently dry them with a paper towel.
15. The screen will read, "Enter 2nd pH".
16. Type in your second pH point, for pH buffer 7, using the value from the temperature correction chart. Press enter.
17. Submerge the probes in the pH 7 solution.
18. Observe the pH and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".
19. Ensure that the calibrated reading is within **0.05** pH units of the standard (when calibrating to pH 7, a range of 6.95-7.05 is acceptable). If the reading is not accurate to within **0.05** pH units then restart the calibration procedure.
20. Record all calibration results on the calibration log.
21. Remove the probes from the pH 7 solution.
22. Rinse the probes with DI water and gently dry them with a paper towel.
23. The screen will read, "Enter 3rd pH".

24. Type in your third pH point, for pH buffer 10, using the value from the temperature correction chart. Press enter.
25. Submerge the probes in the pH 10 solution.
26. Observe the pH and temperature readings. When they are stable, press enter. The top of the screen will read, "calibrated".
27. Ensure that the calibrated reading is within **0.05** pH units of the standard (when calibrating to pH 10, a range of 9.95-10.05 is acceptable). If the reading is not accurate to within **0.05** pH units then restart the calibration procedure.
28. Record all calibration results on the calibration log.
29. Remove the probes from the pH10 solution.
30. Rinse the probes with DI water and gently dry them with a paper towel.
31. On the Sonde main screen, highlight Sonde Run and press Enter.
32. Submerge the probes in the pH 7 solution.
33. Observe the pH and temperature readings. When they are stable, ensure that the pH reading is within **0.1** pH units of 7.0 (a range of 6.9-7.1 is acceptable).
34. Record all calibration results on the calibration log.

Temperature Dependence for pH Buffers

	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
pH Buffer 4.0	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06
pH Buffer 7.0	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97
pH Buffer 10.0	10.17	10.11	10.05	10.00	9.95	9.91	9.87	9.84	9.81

THREE HOUR CALIBRATION CHECK

Field personnel will perform a calibration check of the YSI's pH meter anytime it is used for longer than a three-hour period.

1. Turn the display unit on by pressing the green power button.
2. Use the arrow buttons to highlight Sonde Run and press enter.
3. Select the pH buffer value closest to the observed pH values at the current site.
4. Submerge the probes in the selected pH buffer solution.
5. Observe the pH and temperature readings. When they are stable, ensure that the pH reading is within **0.2** pH units of the buffer value. If the reading is not accurate to within **0.2** pH units then perform a calibration of the instrument's pH meter following the steps provided in the "initial calibration section" of this document.
6. Record all calibration results on the calibration log.

END OF DAY CALIBRATION CHECK:

In addition to performing a calibration check after three hours of meter use, a calibration check is to be performed at the end of each day of use. Field personnel should follow the procedures outlined in the "Three Hour Calibration Check" Section when performing the end of day check.

DAILY DUPLICATE

When conducting analysis other than low-flow sampling, a daily duplicate must be taken for pH, specific conductance, and DO measurements at a rate of 1 per 20 measurements. The daily duplicate should be taken within 15 minutes of the field reading and recorded on the DFR or on the form being used for recording the water quality measurements. For pH, the probe should be removed after taking the initial reading, rinsed with DI water, and then the duplicate reading should be taken. The acceptance range for pH is within ± 1 SU.

NOTE:

A calibration of pH must always occur when a calibration of oxidation-reduction potential (ORP) has been conducted and vice versa.

Approval Signatures		
Manager/Lead Technical Director		Date:
Quality Assurance Officer		Date:

QAPP
ATTACHMENT A

State of New Jersey
Department of Environmental Protection
Certifies That

EUROFINS LANCASTER LABS ENVIRONMENT TESTING, LLC

Laboratory Certification ID # PA011

is hereby approved as a

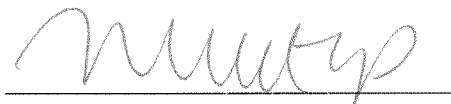
Nationally Accredited Environmental Laboratory
to perform the analyses as indicated on the Annual Certified Parameter List
which must accompany this certificate to be valid

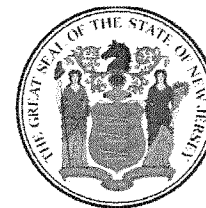
having duly met the requirements of the
Regulations Governing the Certification of
Laboratories and Environmental Measurements N.J.A.C. 7:18 et. seq.
and

having been found compliant with the 2016 TNI Standard approved by the
The NELAC Institute

Expires June 30, 2023




Michele M. Potter
Manager



NJDEP is a NELAP Recognized Accreditation Body

This certificate is to be conspicuously displayed at the laboratory with the annual certified parameter list in a location on the premises visible to the public. Consumers are urged to verify the laboratory's current accreditation status with the State of NJ, NELAP.

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: AE04 --Organics Analysis

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	AE04.01900	Volatile organics	GC	EPA 18	LA
Certified	Yes	AE04.03250	Non-Methane Organic Compounds	FID	EPA 25	LA
Certified	Yes	AE04.17950	Acetone	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18000	Acetonitrile	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18100	Acrolein	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18250	Acrylonitrile	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18300	Allyl chloride	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18400	Benzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18450	Benzyl chloride	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18600	Bromodichloromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18650	Bromoform	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18700	Bromomethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18750	Butadiene (1,3-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18850	Butylbenzene (n-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.18900	Carbon disulfide	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19000	Carbon tetrachloride	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19150	Chlorobenzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19200	Chloroethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19250	Chloroform	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19300	Chloromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19400	Chlorotoluene (2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19500	Cyclohexane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19600	Dibromo-3-chloropropane (1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19650	Dibromochloromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19700	Dibromoethane (1,2-) (EDB)	GC/MS, Canisters	EPA TO-15	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: AE04 --Organics Analysis

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	AE04.19750	Dichlorobenzene (1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19800	Dichlorobenzene (1,3-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19850	Dichlorobenzene (1,4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19900	Dichlorodifluoromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.19950	Dichloroethane (1,1-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20000	Dichloroethane (1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20050	Dichloroethene (1,1-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20100	Dichloroethene (cis-1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20150	Dichloroethene (trans-1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20200	Dichlorofluoromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20250	Dichloropropane (1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20300	Dichloropropene (cis-1,3-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20350	Dichloropropene (trans-1,3-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20400	Dichlorotetrafluoroethane (1,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20750	Dioxane (1,4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20900	Ethanol	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.20950	Ethyl acetate	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21000	Ethyl acrylate	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21100	Ethylbenzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21250	Ethyltoluene (4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21400	Heptane (n-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21450	Hexachlorobutadiene (1,3-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21500	Hexachloroethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21550	Hexane (n-)	GC/MS, Canisters	EPA TO-15	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: AE04 --Organics Analysis

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	AE04.21600	Hexanone (2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21700	Isopropanol	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21750	Isopropylbenzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21850	Methyl ethyl ketone (MEK)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21900	Methyl iodide	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.21950	Methyl isobutyl ketone (MIBK)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22050	Methyl methacrylate	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22100	Methyl tert-butyl ether	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22150	Methylene chloride (Dichloromethane)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22300	Naphthalene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22850	Propylbenzene (n-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.22950	Propylene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23100	Sec-butylbenzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23150	Styrene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23250	Tert-butyl alcohol	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23300	Tert-butylbenzene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23350	Tetrachloroethane (1,1,2,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23400	Tetrachloroethene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23450	Tetrahydrofuran	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23500	Toluene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23550	Trichloro (1,1,2-) trifluoroethane (1,2,2-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23600	Trichlorobenzene (1,2,4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23650	Trichloroethane (1,1,1-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23700	Trichloroethane (1,1,2-)	GC/MS, Canisters	EPA TO-15	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: AE04 --Organics Analysis

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	AE04.23750	Trichloroethene	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.23800	Trichlorofluoromethane	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24050	Trimethylbenzene (1,2,4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24100	Trimethylbenzene (1,3,5-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24150	Trimethylpentane (2,2,4-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24200	Vinyl acetate	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24250	Vinyl bromide	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24300	Vinyl chloride	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24350	Xylene (m-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24400	Xylene (o-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24450	Xylene (p-)	GC/MS, Canisters	EPA TO-15	LA
Certified	Yes	AE04.24500	Xylenes (total)	GC/MS, Canisters	EPA TO-15	LA

Category: BT06 --Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT06.00220	Aldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00230	Alpha BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00240	Beta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00250	Chlordane (alpha) (cis-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00260	Chlordane (gamma) (trans-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00270	Chlordane (technical)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00280	DDD (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: BT06 --Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT06.00290	DDE (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00300	DDT (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00310	Delta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00320	Dieldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00330	Endosulfan I	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00340	Endosulfan II	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00350	Endosulfan sulfate	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00360	Endrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00370	Endrin aldehyde	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00380	Endrin ketone	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00390	Heptachlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00400	Heptachlor epoxide	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00410	Lindane (gamma BHC)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00420	Methoxychlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00430	Toxaphene	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	LA
Certified	Yes	BT06.00510	PCB 1016	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00520	PCB 1221	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00530	PCB 1232	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00540	PCB 1242	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00550	PCB 1248	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00560	PCB 1254	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA
Certified	Yes	BT06.00570	PCB 1260	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	LA

Category: BT07 --Organic Parameters - Chromatography/MS

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

**Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994**

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00010	Acenaphthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.00020	HpCDD (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00030	HpCDF (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00040	HpCDF (1,2,3,4,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00050	HxCDD (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00060	HxCDD (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00070	HxCDD (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00080	HxCDF (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00090	HxCDF (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00100	HxCDF (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00110	HxCDF (2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00120	OCDD (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00130	OCDF (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00140	PeCDD (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00150	PeCDF (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00160	PeCDF (2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00170	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00180	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	LA
Certified	Yes	BT07.00190	Chlorobiphenyl (2-) (PCB 1)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00200	Chlorobiphenyl (3-) (PCB 2)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00210	Chlorobiphenyl (4-) (PCB 3)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00220	Dichlorobiphenyl (2,2'-) (PCB 4)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00230	Dichlorobiphenyl (2,3-) (PCB 5)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00240	Dichlorobiphenyl (2,3'-) (PCB 6)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00250	Dichlorobiphenyl (2,4-) (PCB 7)	Extraction, SIM, GC/MS	EPA 1668A	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: BT07 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00260	Dichlorobiphenyl (2,4'-) (PCB 8)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00270	Dichlorobiphenyl (2,5-) (PCB 9)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00280	Dichlorobiphenyl (2,6-) (PCB 10)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00290	Dichlorobiphenyl (3,3'-) (PCB 11)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00300	Dichlorobiphenyl (3,4-) (PCB 12)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00310	Dichlorobiphenyl (3,4'-) (PCB 13)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00320	Dichlorobiphenyl (3,5-) (PCB 14)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00330	Dichlorobiphenyl (4,4'-) (PCB 15)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00340	Trichlorobiphenyl (2,2',3-) (PCB 16)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00350	Trichlorobiphenyl (2,2',4-) (PCB 17)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00360	Trichlorobiphenyl (2,2',5-) (PCB 18)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00370	Trichlorobiphenyl (2,2',6-) (PCB 19)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00380	Trichlorobiphenyl (2,3,3'-) (PCB 20)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00390	Trichlorobiphenyl (2,3,4-) (PCB 21)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00400	Trichlorobiphenyl (2,3,4'-) (PCB 22)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00410	Trichlorobiphenyl (2,3,5-) (PCB 23)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00420	Trichlorobiphenyl (2,3,6-) (PCB 24)	Extraction, SIM, GC/MS	EPA 1668A	LA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: BT07 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00430	Trichlorobiphenyl (2,3',4-) (PCB 25)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00440	Trichlorobiphenyl (2,3',5-) (PCB 26)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00450	Trichlorobiphenyl (2,3',6-) (PCB 27)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00460	Trichlorobiphenyl (2,4,4'-) (PCB 28)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00470	Trichlorobiphenyl (2,4,5-) (PCB 29)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00480	Trichlorobiphenyl (2,4,6-) (PCB 30)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00490	Trichlorobiphenyl (2,4',5-) (PCB 31)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00500	Trichlorobiphenyl (2,4',6-) (PCB 32)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00510	Trichlorobiphenyl (2,3', 4'-) (PCB 33)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00520	Trichlorobiphenyl (2,3', 5'-) (PCB 34)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00530	Trichlorobiphenyl (3,3',4-) (PCB 35)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00540	Trichlorobiphenyl (3,3',5-) (PCB 36)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00550	Trichlorobiphenyl (3,4,4'-) (PCB 37)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00560	Trichlorobiphenyl (3,4,5-) (PCB 38)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00570	Trichlorobiphenyl (3,4',5-) (PCB 39)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00580	Tetrachlorobiphenyl (2,2', 3,3'-) (PCB 40)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00590	Tetrachlorobiphenyl (2,2', 3,4-) (PCB 41)	Extraction, SIM, GC/MS	EPA 1668A	LA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: BT07 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00600	Tetrachlorobiphenyl (2,2', 3,4'-) (PCB 42)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00610	Tetrachlorobiphenyl (2,2', 3,5-) (PCB 43)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00620	Tetrachlorobiphenyl (2,2', 3,5'-) (PCB 44)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00630	Tetrachlorobiphenyl (2,2', 3,6-) (PCB 45)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00640	Tetrachlorobiphenyl (2,2', 3,6'-) (PCB 46)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00650	Tetrachlorobiphenyl (2,2', 4,4'-) (PCB 47)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00660	Tetrachlorobiphenyl (2,2', 4,5-) (PCB 48)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00670	Tetrachlorobiphenyl (2,2', 4,5'-) (PCB 49)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00680	Tetrachlorobiphenyl (2,2', 4,6-) (PCB 50)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00690	Tetrachlorobiphenyl (2,2', 4,6'-) (PCB 51)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00700	Tetrachlorobiphenyl (2,2', 5,5'-) (PCB 52)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00710	Tetrachlorobiphenyl (2,2', 5,6'-) (PCB 53)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00720	Tetrachlorobiphenyl (2,2', 6,6'-) (PCB 54)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00730	Tetrachlorobiphenyl (2,3,3',4-) (PCB 55)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00740	Tetrachlorobiphenyl (2,3,3',4'-) (PCB 56)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00750	Tetrachlorobiphenyl (2,3,3',5-) (PCB 57)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00760	Tetrachlorobiphenyl (2,3,3',5'-) (PCB 58)	Extraction, SIM, GC/MS	EPA 1668A	LA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00770	Tetrachlorobiphenyl (2,3,3',6-) (PCB 59)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00780	Tetrachlorobiphenyl (2,3,4,4'-) (PCB 60)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00790	Tetrachlorobiphenyl (2,3,4,5-) (PCB 61)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00800	Tetrachlorobiphenyl (2,3,4,6-) (PCB 62)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00810	Tetrachlorobiphenyl (2,3,4',5-) (PCB 63)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00820	Tetrachlorobiphenyl (2,3,4',6-) (PCB 64)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00830	Tetrachlorobiphenyl (2,3,5,6-) (PCB 65)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00840	Tetrachlorobiphenyl (2,3',4,4'-) (PCB 66)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00850	Tetrachlorobiphenyl (2,3',4,5-) (PCB 67)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00860	Tetrachlorobiphenyl (2,3',4,5'-) (PCB 68)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00870	Tetrachlorobiphenyl (2,3',4,6-) (PCB 69)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00880	Tetrachlorobiphenyl (2,3',4',5-) (PCB 70)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00890	Tetrachlorobiphenyl (2,3',4',6-) (PCB 71)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00900	Tetrachlorobiphenyl (2,3',5,5'-) (PCB 72)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00910	Tetrachlorobiphenyl (2,3',5',6-) (PCB 73)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00920	Tetrachlorobiphenyl (2,4,4',5-) (PCB 74)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00930	Tetrachlorobiphenyl (2,4,4',6-) (PCB 75)	Extraction, SIM, GC/MS	EPA 1668A	LA

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LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.00940	Tetrachlorobiphenyl (2,3', 4',5'-) (PCB 76)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00950	Tetrachlorobiphenyl (3,3', 4,4'-) (PCB 77)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00960	Tetrachlorobiphenyl (3,3', 4,5'-) (PCB 78)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00970	Tetrachlorobiphenyl (3,3', 4,5'-) (PCB 79)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00980	Tetrachlorobiphenyl (3,3', 5,5'-) (PCB 80)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.00990	Tetrachlorobiphenyl (3,4,4',5'-) (PCB 81)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01000	Pentachlorobiphenyl (2,2',3,3',4'-) (PCB 82)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01010	Pentachlorobiphenyl (2,2',3,3',5'-) (PCB 83)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01020	Pentachlorobiphenyl (2,2',3,3',6'-) (PCB 84)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01030	Pentachlorobiphenyl (2,2',3,4,4'-) (PCB 85)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01040	Pentachlorobiphenyl (2,2',3,4,5'-) (PCB 86)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01050	Pentachlorobiphenyl (2,2',3,4,5'-) (PCB 87)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01060	Pentachlorobiphenyl (2,2',3,4,6'-) (PCB 88)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01070	Pentachlorobiphenyl (2,2',3,4,6'-) (PCB 89)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01080	Pentachlorobiphenyl (2,2',3,4',5'-) (PCB 90)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01090	Pentachlorobiphenyl (2,2',3,4',6'-) (PCB 91)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01100	Pentachlorobiphenyl (2,2',3,5,5'-) (PCB 92)	Extraction, SIM, GC/MS	EPA 1668A	LA

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Certified	Yes	BT07.01110	Pentachlorobiphenyl (2,2',3,5,6-) (PCB 93)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01120	Pentachlorobiphenyl (2,2',3,5,6'-) (PCB 94)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01130	Pentachlorobiphenyl (2,2',3,5',6-) (PCB 95)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01140	Pentachlorobiphenyl (2,2',3,6,6'-) (PCB 96)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01150	Pentachlorobiphenyl (2,2',3,4',5'-) (PCB 97)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01160	Pentachlorobiphenyl (2,2',3,4',6'-) (PCB 98)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01170	Pentachlorobiphenyl (2,2',4,4',5-) (PCB 99)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01180	Pentachlorobiphenyl (2,2',4,4',6-) (PCB 100)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01190	Pentachlorobiphenyl (2,2',4,5,5'-) (PCB 101)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01200	Pentachlorobiphenyl (2,2',4,5,6'-) (PCB 102)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01210	Pentachlorobiphenyl (2,2',4,5',6-) (PCB 103)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01220	Pentachlorobiphenyl (2,2',4,6,6'-) (PCB 104)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01230	Pentachlorobiphenyl (2,3,3',4,4'-) (PCB 105)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01240	Pentachlorobiphenyl (2,3,3',4,5-) (PCB 106)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01250	Pentachlorobiphenyl (2,3,3',4',5-) (PCB 107)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01260	Pentachlorobiphenyl (2,3,3',4,5'-) (PCB 108)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01270	Pentachlorobiphenyl (2,3,3',4,6-) (PCB 109)	Extraction, SIM, GC/MS	EPA 1668A	LA

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Certified	Yes	BT07.01280	Pentachlorobiphenyl (2,3,3',4',6-) (PCB 110)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01290	Pentachlorobiphenyl (2,3,3',5,5'-) (PCB 111)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01300	Pentachlorobiphenyl (2,3,3',5,6-) (PCB 112)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01310	Pentachlorobiphenyl (2,3,3',5',6-) (PCB 113)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01320	Pentachlorobiphenyl (2,3,4,4',5-) (PCB 114)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01330	Pentachlorobiphenyl (2,3,4,4',6-) (PCB 115)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01340	Pentachlorobiphenyl (2,3,4,5,6-) (PCB 116)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01350	Pentachlorobiphenyl (2,3,4',5,6-) (PCB 117)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01360	Pentachlorobiphenyl (2,3',4,4',5-) (PCB 118)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01370	Pentachlorobiphenyl (2,3',4,4',6-) (PCB 119)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01380	Pentachlorobiphenyl (2,3',4,5,5'-) (PCB 120)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01390	Pentachlorobiphenyl (2,3',4,5',6-) (PCB 121)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01400	Pentachlorobiphenyl (2,3,3',4',5'-) (PCB 122)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01410	Pentachlorobiphenyl (2,3',4,4',5'-) (PCB 123)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01420	Pentachlorobiphenyl (2,3',4',5,5'-) (PCB 124)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01430	Pentachlorobiphenyl (2,3',4',5',6-) (PCB 125)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01440	Pentachlorobiphenyl (3,3',4,4',5-) (PCB 126)	Extraction, SIM, GC/MS	EPA 1668A	LA

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LANCASTER PA 176015994

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Certified	Yes	BT07.01450	Pentachlorobiphenyl (3,3',4,5,5'-) (PCB 127)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01460	Hexachlorobiphenyl (2,2',3,3',4,4'-) (PCB 128)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01470	Hexachlorobiphenyl (2,2',3,3',4,5'-) (PCB 129)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01480	Hexachlorobiphenyl (2,2',3,3',4,5'-) (PCB 130)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01490	Hexachlorobiphenyl (2,2',3,3',4,6'-) (PCB 131)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01500	Hexachlorobiphenyl (2,2',3,3',4,6'-) (PCB 132)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01510	Hexachlorobiphenyl (2,2',3,3',5,5'-) (PCB 133)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01520	Hexachlorobiphenyl (2,2',3,3',5,6'-) (PCB 134)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01530	Hexachlorobiphenyl (2,2',3,3',5,6'-) (PCB 135)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01540	Hexachlorobiphenyl (2,2',3,3',6,6'-) (PCB 136)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01550	Hexachlorobiphenyl (2,2',3,4,4',5'-) (PCB 137)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01560	Hexachlorobiphenyl (2,2',3,4,4',5'-) (PCB 138)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01570	Hexachlorobiphenyl (2,2',3,4,4',6'-) (PCB 139)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01580	Hexachlorobiphenyl (2,2',3,4,4',6'-) (PCB 140)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01590	Hexachlorobiphenyl (2,2',3,4,5,5'-) (PCB 141)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01600	Hexachlorobiphenyl (2,2',3,4,5,6'-) (PCB 142)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01610	Hexachlorobiphenyl (2,2',3,4,5,6'-) (PCB 143)	Extraction, SIM, GC/MS	EPA 1668A	LA

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Certified	Yes	BT07.01620	Hexachlorobiphenyl (2,2', 3,4,5',6-) (PCB 144)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01630	Hexachlorobiphenyl (2,2', 3,4,6,6'-) (PCB 145)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01640	Hexachlorobiphenyl (2,2', 3,4',5,5'-) (PCB 146)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01650	Hexachlorobiphenyl (2,2', 3,4',5,6-) (PCB 147)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01660	Hexachlorobiphenyl (2,2', 3,4',5,6'-) (PCB 148)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01670	Hexachlorobiphenyl (2,2', 3,4',5',6-) (PCB 149)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01680	Hexachlorobiphenyl (2,2', 3,4',6,6'-) (PCB 150)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01690	Hexachlorobiphenyl (2,2', 3,5,5',6-) (PCB 151)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01700	Hexachlorobiphenyl (2,2', 3,5,6,6'-) (PCB 152)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01710	Hexachlorobiphenyl (2,2', 4,4',5,5'-) (PCB 153)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01720	Hexachlorobiphenyl (2,2', 4,4',5,6'-) (PCB 154)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01730	Hexachlorobiphenyl (2,2', 4,4',6,6'-) (PCB 155)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01740	Hexachlorobiphenyl (2,3,3',4,4',5-) (PCB 156)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01750	Hexachlorobiphenyl (2,3,3',4,4',5'-) (PCB 157)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01760	Hexachlorobiphenyl (2,3,3',4,4',6-) (PCB 158)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01770	Hexachlorobiphenyl (2,3,3',4,5,5'-) (PCB 159)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01780	Hexachlorobiphenyl (2,3,3',4,5,6-) (PCB 160)	Extraction, SIM, GC/MS	EPA 1668A	LA

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LANCASTER PA 176015994

Category: BT07 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.01790	Hexachlorobiphenyl (2,3,3',4,5',6-) (PCB 161)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01800	Hexachlorobiphenyl (2,3,3',4',5,5'-) (PCB 162)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01810	Hexachlorobiphenyl (2,3,3',4',5,6-) (PCB 163)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01820	Hexachlorobiphenyl (2,3,3',4',5',6-) (PCB 164)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01830	Hexachlorobiphenyl (2,3,3',5,5',6-) (PCB 165)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01840	Hexachlorobiphenyl (2,3,4,4',5,6-) (PCB 166)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01850	Hexachlorobiphenyl (2,3',4,4',5,5'-) (PCB 167)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01860	Hexachlorobiphenyl (2,3',4,4',5',6-) (PCB 168)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01870	Hexachlorobiphenyl (3,3',4,4',5,5'-) (PCB 169)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01880	Heptachlorobiphenyl (2,2',3,3',4,4',5-) (PCB 170)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01890	Heptachlorobiphenyl (2,2',3,3',4,4',6-) (PCB 171)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01900	Heptachlorobiphenyl (2,2',3,3',4,5,5'-) (PCB 172)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01910	Heptachlorobiphenyl (2,2',3,3',4,5,6-) (PCB 173)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01920	Heptachlorobiphenyl (2,2',3,3',4,5,6'-) (PCB 174)	Extraction, SIM, GC/MS	EPA 1668A	LA

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LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.01930	Heptachlorobiphenyl (2,2',3,3',4,5',6-) (PCB 175)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01940	Heptachlorobiphenyl (2,2',3,3',4,6,6'-) (PCB 176)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01950	Heptachlorobiphenyl (2,2',3,3',4,5',6'-) (PCB 177)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01960	Heptachlorobiphenyl (2,2',3,3',5,5',6-) (PCB 178)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01970	Heptachlorobiphenyl (2,2',3,3',5,6,6'-) (PCB 179)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01980	Heptachlorobiphenyl (2,2',3,4,4',5,5'-) (PCB 180)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.01990	Heptachlorobiphenyl (2,2',3,4,4',5,6-) (PCB 181)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02000	Heptachlorobiphenyl (2,2',3,4,4',5,6'-) (PCB 182)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02010	Heptachlorobiphenyl (2,2',3,4,4',5',6-) (PCB 183)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02020	Heptachlorobiphenyl (2,2',3,4,4',6,6'-) (PCB 184)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02030	Heptachlorobiphenyl (2,2',3,4,5,5',6-) (PCB 185)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02040	Heptachlorobiphenyl (2,2',3,4,5,6,6'-) (PCB 186)	Extraction, SIM, GC/MS	EPA 1668A	LA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.02050	Heptachlorobiphenyl (2,2',3,4',5,5',6-) (PCB 187)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02060	Heptachlorobiphenyl (2,2',3,4',5,6,6-) (PCB 188)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02070	Heptachlorobiphenyl (2,3,3',4,4',5,5'-) (PCB 189)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02080	Heptachlorobiphenyl (2,3,3',4,4',5,6-) (PCB 190)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02090	Heptachlorobiphenyl (2,3,3',4,4',5',6-) (PCB 191)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02100	Heptachlorobiphenyl (2,3,3',4,5,5',6-) (PCB 192)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02110	Heptachlorobiphenyl (2,3,3',4',5,5',6-) (PCB 193)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02120	Octachlorobiphenyl (2,2',3,3',4,4',5,5'-) (PCB 194)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02130	Octachlorobiphenyl (2,2',3,3',4,4',5,6-) (PCB 195)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02140	Octachlorobiphenyl (2,2',3,3',4,4',5,6'-) (PCB 196)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02150	Octachlorobiphenyl (2,2',3,3',4,4',6,6'-) (PCB 197)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02160	Octachlorobiphenyl (2,2',3,3',4,5,5',6-) (PCB 198)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02170	Octachlorobiphenyl (2,2',3,3',4,5,5',6'-) (PCB 199)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02180	Octachlorobiphenyl (2,2',3,3',4,5,6,6'-) (PCB 200)	Extraction, SIM, GC/MS	EPA 1668A	LA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.02190	Octachlorobiphenyl (2,2', 3,3',4,5',6,6'-) (PCB 201)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02200	Octachlorobiphenyl (2,2', 3,3',5,5',6,6'-) (PCB 202)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02210	Octachlorobiphenyl (2,2', 3,4,4',5,5',6'-) (PCB 203)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02220	Octachlorobiphenyl (2,2', 3,4,4',5,6,6'-) (PCB 204)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02230	Octachlorobiphenyl (2,3,3',4,4',5,5',6'-) (PCB 205)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02240	Nonachlorobiphenyl (2,2', 3,3',4,4',5,5',6'-) (PCB 206)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02250	Nonachlorobiphenyl (2,2', 3,3',4,4',5,6,6'-) (PCB 207)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02260	Nonachlorobiphenyl (2,2', 3,3',4,5,5',6,6'-) (PCB 208)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.02270	Decachlorobiphenyl (PCB 209)	Extraction, SIM, GC/MS	EPA 1668A	LA
Certified	Yes	BT07.05090	Acenaphthylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05100	Anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05110	Benzaldehyde	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05120	Benzo(a)anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05130	Benzo(a)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05140	Benzo(b)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05150	Benzo(ghi)perylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05160	Benzo(k)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05170	Biphenyl (1,1'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05172	Bis (2-chloroethoxy) methane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA

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Category: BT07 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.05174	Bis (2-chloroethyl) ether	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05176	Bis(2-chloroisopropyl) ether[2,2'-oxybis(1-chloropropane)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05180	Bis (2-ethylhexyl) phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05182	Bromophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05190	Butylbenzylphthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05192	Carbazole	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05194	Chloroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05200	Chloronaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05202	Chlorophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05204	Chlorophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05210	Chrysene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05230	Dibenzofuran	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05232	Dichlorobenzene (1,2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05233	Dichlorobenzene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05234	Dichlorobenzene (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05236	Dichlorobenzidine (3,3'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05238	Dichlorophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05240	Diethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05250	Dimethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05252	Dimethylphenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05260	Di-n-butyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05262	Dinitrophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05263	Dinitrophenol (2-methyl-4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05264	Dinitrotoluene (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	BT07.05265	Dinitrotoluene (2,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05270	Di-n-octyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05280	Fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05290	Fluorene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05292	Hexachlorobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05293	Hexachlorobutadiene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05294	Hexachlorocyclopentadiene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05295	Hexachloroethane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05300	Indeno(1,2,3-cd)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05302	Isophorone	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05304	Methyl phenol (4-chloro-3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05310	Methylnaphthalene (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05320	Methylnaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05322	Methylphenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05324	Methylphenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05330	Naphthalene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05332	Nitroaniline (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05333	Nitroaniline (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05334	Nitroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05335	Nitrobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05336	Nitrophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05337	Nitrophenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05338	N-Nitroso-di-n-propylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05339	N-Nitrosodiphenylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05340	Pentachlorophenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA

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Certified	Yes	BT07.05350	Phenanthrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05352	Phenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05360	Pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05362	Pyridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05364	Trichlorobenzene (1,2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05365	Trichlorophenol (2,4,5-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05366	Trichlorophenol (2,4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05370	Acenaphthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05380	Acenaphthylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05390	Anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05400	Benzo(a)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05410	Benzo(a)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05420	Benzo(b)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05430	Benzo(ghi)perylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05440	Benzo(k)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05450	Dibenzo(a,h)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05460	Fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05470	Fluorene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05480	Indeno(1,2,3-cd)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05490	Methylnaphthalene (2-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05500	Naphthalene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05520	Phenanthrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05530	Pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	LA
Certified	Yes	BT07.05790	HpCDD (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05800	HpCDF (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05810	HpCDF (1,2,3,4,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05820	HxCDD (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA

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Certified	Yes	BT07.05830	HxCDD (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05840	HxCDD (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05850	HxCDF (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05860	HxCDF (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05870	HxCDF (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05880	HxCDF (2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05890	OCDD (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05900	OCDF (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05910	PeCDD (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05920	PeCDF (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05930	PeCDF (2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05940	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05950	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05960	Total HpCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05970	Total HpCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05980	Total HxCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.05990	Total HxCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.06000	Total PeCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.06010	Total PeCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.06020	Total TCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA
Certified	Yes	BT07.06030	Total TCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	LA

Category: DW03 --Inorganic Parameters

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW03.00050	Alkalinity	Electrometric Titration	SM 2320 B	PA
Certified	Yes	DW03.01800	Chloride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	DW03.02550	Color	Platinum-Cobalt	SM 2120 B	PA
Certified	Yes	DW03.02700	Conductivity	Conductance	SM 2510 B	PA
Certified	Yes	DW03.03150	Cyanide	Spectrophotometric, Distill, Semi Automated	EPA 335.4	PA
Certified	Yes	DW03.03750	Fluoride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	DW03.03900	Fluoride	Manual Potentiometric Ion Select Electrode	SM 4500-F C	PA
Certified	Yes	DW03.03950	Foaming agents	Methylene Blue	SM 5540 C	PA
Certified	Yes	DW03.04000	Nitrate	Automated Cadmium Reduction	EPA 353.2	PA
Certified	Yes	DW03.04600	Nitrate	Ion Chromatography	EPA 300.0	PA
Certified	No	DW03.04950	Nitrate - nitrite	Automated Cadmium Reduction	User Defined EPA 353.2	PA
Certified	Yes	DW03.05000	Nitrite	Automated Cadmium Reduction	EPA 353.2	PA
Certified	Yes	DW03.05450	Nitrite	Ion Chromatography	EPA 300.0	PA
Certified	Yes	DW03.05950	Orthophosphate	Colorimetric	SM 4500-P E	PA
Certified	Yes	DW03.06600	Residue - nonfilterable (TSS)	Gravimetric, 103-105 Deg C, Post Washing - mining	SM 2540 D	PA
Certified	Yes	DW03.06900	Sulfate	Ion Chromatography	EPA 300.0	PA
Certified	Yes	DW03.07150	Total dissolved solids (TDS)	Gravimetric At 180	SM 2540 C	PA
Certified	Yes	DW03.07250	Total hardness	Titrimetric, EDTA	SM 2340 C	PA
Certified	Yes	DW03.07550	Total organic carbon (TOC)	Persulfate-UV	SM 5310 C	PA
Certified	Yes	DW03.07800	Turbidity	Nephelometric	EPA 180.1	PA
Certified	Yes	DW03.08100	Turbidity	Nephelometric	SM 2130 B	PA

Category: DW04 --Analyze-Immed. and Continuous Monitoring

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
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Category: DW04 --Analyze-Immed. and Continuous Monitoring

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW04.00350	Chlorine - total, free or combined	DPD, Ferrous Titrimetric	SM 4500-Cl F	PA
Certified	Yes	DW04.01050	pH	Electrometric	SM 4500-H B	PA
Certified	Yes	DW04.01200	Temperature	Thermometric	SM 2550 B	PA

Category: DW06 --Metals

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW06.01500	Mercury	Manual Cold Vapor	EPA 245.1	PA
Certified	Yes	DW06.03500	Silica	Molybdosilicate	SM 4500-SiO2 C	PA

Category: DW07 --Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW07.01000	Barium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01200	Calcium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01250	Chromium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01300	Cobalt	ICP	EPA 200.7	PA
Certified	Yes	DW07.01350	Copper	ICP	EPA 200.7	PA
Certified	Yes	DW07.01400	Iron	ICP	EPA 200.7	PA
Certified	Yes	DW07.01450	Lithium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01500	Magnesium	ICP	EPA 200.7	PA

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Category: DW07 --Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW07.01550	Manganese	ICP	EPA 200.7	PA
Certified	Yes	DW07.01650	Nickel	ICP	EPA 200.7	PA
Certified	Yes	DW07.01700	Potassium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01800	Silver	ICP	EPA 200.7	PA
Certified	Yes	DW07.01850	Sodium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01900	Strontium	ICP	EPA 200.7	PA
Certified	Yes	DW07.01950	Tin	ICP	EPA 200.7	PA
Certified	Yes	DW07.02050	Vanadium	ICP	EPA 200.7	PA
Certified	Yes	DW07.02100	Zinc	ICP	EPA 200.7	PA
Certified	Yes	DW07.02150	Aluminum	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02200	Antimony	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02250	Arsenic	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02300	Barium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02350	Beryllium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02400	Cadmium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02450	Chromium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02550	Copper	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02600	Lead	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02650	Manganese	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02800	Nickel	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02850	Selenium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.02950	Thallium	ICP/MS	EPA 200.8	PA
Certified	Yes	DW07.03100	Zinc	ICP/MS	EPA 200.8	PA

Category: DW08 --Organic Parameters - Chromatography

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LANCASTER PA 176015994

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW08.12800	Aldicarb	HPLC	EPA 531.1	PA
Certified	Yes	DW08.12850	Aldicarb sulfone	HPLC	EPA 531.1	PA
Certified	Yes	DW08.12900	Aldicarb sulfoxide	HPLC	EPA 531.1	PA
Certified	Yes	DW08.12950	Carbaryl	HPLC	EPA 531.1	PA
Certified	Yes	DW08.13000	Carbofuran (furadan)	HPLC	EPA 531.1	PA
Certified	Yes	DW08.13050	Hydroxy carbofuran (3-)	HPLC	EPA 531.1	PA
Certified	Yes	DW08.13150	Methomyl (Lannate)	HPLC	EPA 531.1	PA
Certified	Yes	DW08.13200	Oxamyl	HPLC	EPA 531.1	PA

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.00750	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	DW09.11450	Acetone	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11500	Acrylonitrile	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11550	Allyl chloride	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11600	Benzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11650	Bromobenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11700	Bromochloromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11750	Bromodichloromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11800	Bromoform	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11850	Bromomethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11900	Butanone (2-) (Methyl ethyl ketone)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.11950	Butylbenzene (n-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12000	Carbon disulfide	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12050	Carbon tetrachloride	GC/MS, P & T	EPA 524.2	PA

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LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.12100	Chloroacetonitrile	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12150	Chlorobenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12200	Chlorobutane (1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12250	Chloroethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12300	Chloroform	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12350	Chloromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12400	Chlorotoluene (2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12450	Chlorotoluene (4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12500	Dibromo-3-chloropropane (1,2-)	GC/MS, P & T	EPA 524.2	NJ
Certified	Yes	DW09.12550	Dibromochloromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12600	Dibromoethane (1,2-) (EDB)	GC/MS, P & T	EPA 524.2	NJ
Certified	Yes	DW09.12650	Dibromomethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12700	Dichloro-2-butene (trans-1,4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12750	Dichlorobenzene (1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12800	Dichlorobenzene (1,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12850	Dichlorobenzene (1,4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12900	Dichlorodifluoromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.12950	Dichloroethane (1,1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13000	Dichloroethane (1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13050	Dichloroethene (1,1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13100	Dichloroethene (cis-1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13150	Dichloroethene (trans-1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13200	Dichloropropane (1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13250	Dichloropropane (1,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13300	Dichloropropane (2,2-)	GC/MS, P & T	EPA 524.2	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.13350	Dichloropropanone (1,1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13400	Dichloropropene (1,1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13450	Dichloropropene (cis-1,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13500	Dichloropropene (trans-1,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13550	Diethyl ether (Ethyl ether)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13600	Diisopropyl Ether (DIPE)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13650	Ethyl methacrylate	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13700	Ethylbenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13750	Ethyl-tert-butyl Ether (ETBE)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13800	Hexachlorobutadiene (1,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.13950	Hexanone (2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14000	Isopropylbenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14050	Isopropyltoluene (4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14100	Methacrylonitrile	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14150	Methyl acrylate	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14200	Methyl iodide	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14250	Methyl methacrylate	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14300	Methyl tert-butyl ether	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14350	Methylene chloride (Dichloromethane)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14400	Naphthalene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14450	Nitrobenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14500	Nitropropane (2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14550	Pentachloroethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14600	Pentanone (4-methyl-2-) (MIBK)	GC/MS, P & T	EPA 524.2	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.14650	Propionitrile	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14700	Propylbenzene (n-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14750	Sec-butylbenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14800	Styrene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14850	tert-Amylmethyl ether (TAME)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14900	Tert-butyl alcohol	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.14950	Tert-butylbenzene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15000	Tetrachloroethane (1,1,1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15050	Tetrachloroethane (1,1,2,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15100	Tetrachloroethene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15150	Tetrahydrofuran	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15200	Toluene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15250	Trichlorobenzene (1,2,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15300	Trichlorobenzene (1,2,4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15400	Trichloroethane (1,1,1-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15450	Trichloroethane (1,1,2-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15500	Trichloroethene	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.15550	Trichlorofluoromethane	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16000	Trichloropropane (1,2,3-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16050	Trimethylbenzene (1,2,4-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16100	Trimethylbenzene (1,3,5-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16150	Vinyl chloride	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16200	Xylene (m- + p-)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.16250	Xylene (o-)	GC/MS, P & T	EPA 524.2	PA

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LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.16300	Xylenes (total)	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	DW09.28900	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.28950	1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29000	1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29050	1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29100	4,8-dioxa-3H-perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29150	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29200	Hexafluoropropylene oxide dimer acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29250	Nonafluoro-3,6-dioxaheptanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29300	Perfluoro(2-ethoxyethane)sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29350	Perfluoro-3-methoxypropanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29400	Perfluoro-4-methoxybutanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29450	Perfluorobutanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29500	Perfluorobutanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29550	Perfluorodecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA

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Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.29600	Perfluorododecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29650	Perfluoroheptanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29700	Perfluoroheptanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29750	Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29800	Perfluorohexanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29850	Perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29900	Perfluorooctanesulfonic acid (PFOS)	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.29950	Perfluorooctanoic acid (PFOA)	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.30000	Perfluoropentanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.30050	Perfluoropentanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.30100	Perfluoroundecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	EPA 533	PA
Certified	Yes	DW09.30150	N-ethylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30200	N-methylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30250	Perfluorobutanesulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30300	Perfluorodecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30350	Perfluorododecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30400	Perfluoroheptanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30450	Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30500	Perfluorohexanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30550	Perfluorononanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.30600	Perfluorooctanesulfonic acid (PFOS)	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30650	Perfluorooctanoic acid (PFOA)	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30700	Perfluorotetradecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30750	Perfluorotridecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30800	Perfluoroundecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537	PA
Certified	Yes	DW09.30850	N-ethylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.30900	N-methylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.30950	Perfluorobutanesulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31000	Perfluorodecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31050	Perfluorododecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31100	Perfluoroheptanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31200	Perfluorohexanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31250	Perfluorononanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31300	Perfluorooctanesulfonic acid (PFOS)	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31350	Perfluorooctanoic acid (PFOA)	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31400	Perfluorotetradecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31450	Perfluorotridecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31500	Perfluoroundecanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31550	Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: DW09 --Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	DW09.31600	Hexafluoropropylene oxide dimer acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31650	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31700	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA
Certified	Yes	DW09.31750	4,8-dioxa-3H-perfluorononanoic acid	LC MS/MS, Electrospray Ionization	EPA 537.1	PA

Category: NPW03--Inorganic Parameters

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW03.00100	Acidity as CaCO ₃	Electrometric or Phenolphthalein	SM 2310 B-11	PA
Certified	Yes	NPW03.00350	Alkalinity as CaCO ₃	Electrometric Titration	SM 2320 B-11	PA
Certified	Yes	NPW03.00360	Alkalinity as CaCO ₃	Titrimetric Indicator	SM 2320B-11	PA
Certified	Yes	NPW03.00750	Ammonia	Distillation, Titration	SM 4500-NH ₃ B plus C-11	PA
Certified	Yes	NPW03.00850	Ammonia	Distillation, Electrode	SM 4500-NH ₃ B plus D-11	PA
Certified	Yes	NPW03.01100	Ammonia	Distillation or Gas Diffusion, Semi-automated Phenate	EPA 350.1	PA
Certified	Yes	NPW03.01550	Biochemical oxygen demand	Dissolved Oxygen Depletion - Membrane Electrode	SM 5210 B-16	PA
Certified	Yes	NPW03.01700	Biochemical oxygen demand	Dissolved Oxygen Depletion - LDO Probe	SM 5210 B-16	PA
Certified	Yes	NPW03.02400	Bromide	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.02500	Bromide	Ion Chromatography	SW-846 9056A	PA

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Category: NPW03--Inorganic Parameters

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW03.02900	Carbonaceous BOD (CBOD)	Diss. Oxygen Depl., Nitrif. Inhib. - Membrane Electrode	SM 5210 B-16	PA
Certified	Yes	NPW03.02950	Carbonaceous BOD (CBOD)	Dissolved Oxygen Depl., Nitrif. Inhib., LDO Electrode	SM 5210 B-16	PA
Certified	Yes	NPW03.03500	Chemical oxygen demand	Spectrophotometric Manual/Auto	EPA 410.4	PA
Certified	Yes	NPW03.04150	Chloride	Titrimetric, Mercuric Nitrate	SM 4500-Cl C-11	PA
Certified	Yes	NPW03.04900	Chloride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.05100	Chloride	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	NPW03.06000	Color	Colorimetric (Platinum-Cobalt)	SM 2120 B-11	PA
Certified	Yes	NPW03.06600	Cyanide	Seg. Flow Inj., In-Line UV Digest., Gas Diff. Amperometry	ASTM D7511-17	PA
Certified	Yes	NPW03.06750	Cyanide	Distillation, Spectrophotometric (Auto)	EPA 335.4	PA
Certified	Yes	NPW03.06850	Cyanide	Colorimetric, Automated	SW-846 9012B	PA
Certified	Yes	NPW03.07550	Cyanide - amenable to Cl ₂	Flow Inj., Ligand Exch., Gas Diff. + Amperometry	Other OIA 1677-09	PA
Certified	Yes	NPW03.07750	Dissolved organic carbon (DOC)	Filtration and Persulfate/UV	SM 5310 C-11	PA
Certified	Yes	NPW03.08150	Fluoride	Distillation + Electrode, Manual	SM 4500-F B plus C-11	PA
Certified	Yes	NPW03.08500	Fluoride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.08700	Fluoride	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	NPW03.09000	Free Cyanide	Flow Injection, Gas Diffusion, Amperometry	Other OIA 1677-09	PA
Certified	Yes	NPW03.09200	Hardness - total as CaCO ₃	Titrimetric, EDTA	SM 2340 C-11	PA
Certified	Yes	NPW03.10600	Kjeldahl nitrogen - total	Digestion, Semiauto. Digestor, Colorimetric	EPA 351.2	PA
Certified	Yes	NPW03.11050	Nitrate	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.11250	Nitrate	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	NPW03.11950	Nitrate - nitrite	Cadmium Reduction, Automated	EPA 353.2	PA
Certified	Yes	NPW03.13100	Nitrite	Auto, bypass Cd reduction	EPA 353.2	PA
Certified	Yes	NPW03.13650	Nitrite	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.13900	Nitrite	Ion Chromatography	SW-846 9056A	PA

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LANCASTER PA 176015994

Category: NPW03--Inorganic Parameters

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW03.14300	Oil & grease - hem-SPE	Gravimetric, Hexane Extractable Material-SPE	EPA 1664B	PA
Certified	Yes	NPW03.14600	Oil & grease - sgt-non polar	Gravimetric, Silica Gel Treated-Hem-LL	EPA 1664B	PA
Certified	Yes	NPW03.15350	Orthophosphate	Ascorbic Acid, Manual Single Reagent	SM 4500-P E-11	PA
Certified	Yes	NPW03.15400	Orthophosphate	Ascorbic Acid, Manual Two Reagent	EPA 365.3	PA
Certified	Yes	NPW03.16850	Phenols	Manual Distillation, Colorimetric Auto	EPA 420.4	PA
Certified	Yes	NPW03.16900	Phenols	Manual Distillation, Colorimetric Auto	SW-846 9066	PA
Certified	Yes	NPW03.17350	Phosphorus (total)	Auto Ascorbic Acid Reduction	EPA 365.1	PA
Certified	Yes	NPW03.17400	Phosphorus (total)	Auto Ascorbic Acid Reduction	SM 4500-P B5-11 plus F-11	PA
Certified	Yes	NPW03.17850	Residue - filterable (TDS)	Gravimetric, 180 Degrees C	SM 2540 C-15	PA
Certified	Yes	NPW03.18000	Residue - nonfilterable (TSS)	Gravimetric, 103-105 Degrees C, Post Washing	SM 2540 D-15	PA
Certified	Yes	NPW03.18100	Residue - settleable	Volumetric (Imhoff Cone) or Gravimetric	SM 2540 F-15	PA
Certified	Yes	NPW03.18150	Residue - total	Gravimetric, 103-105 Degrees C	SM 2540 B-15	PA
Certified	Yes	NPW03.18800	Specific conductance	Wheatstone Bridge	SM 2510 B-11	PA
Certified	Yes	NPW03.18850	Specific conductance	Wheatstone Bridge	SW-846 9050A	PA
Certified	Yes	NPW03.19850	Sulfate	Ion Chromatography	EPA 300.0	PA
Certified	Yes	NPW03.20050	Sulfate	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	NPW03.20450	Sulfides	Titrimetric, Iodine	SM 4500-S B, C plus F-11	PA
Certified	Yes	NPW03.20500	Sulfides	Colorimetric (Methylene Blue)	SM 4500-S B, C plus D-11	PA
Certified	Yes	NPW03.20750	Surfactants	Colorimetric (Methylene Blue)	SM 5540 C-11	PA
Certified	Yes	NPW03.21300	Total organic carbon (TOC)	Heated or UV	SM 5310 C-14	PA
Certified	Yes	NPW03.21450	Total organic carbon (TOC)	Infrared Spectrometry or FID	SW-846 9060A	PA
Certified	Yes	NPW03.22100	Turbidity	Nephelometric	EPA 180.1	PA

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Category: NPW04--Analyze-Immed. and Continuous Monitoring

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW04.00250	Chlorine	DPD-FAS	SM 4500-Cl F-11	PA
Certified	Yes	NPW04.00800	Oxygen (dissolved)	Luminescence Based Sensor	Other HACH 10360 (10-2011 Rev 1.2)	PA
Certified	Yes	NPW04.01650	pH	Electrometric	SM 4500-H B-11	PA
Certified	Yes	NPW04.01750	pH (corrosivity)	Aqueous, Electrometric	SW-846 9040C	PA
Certified	Yes	NPW04.01850	Sulfite - SO3	Titrimetric, Iodine-Iodate	SM 4500-SO3 B-11	PA
Certified	Yes	NPW04.01950	Temperature	Thermometric	SM 2550 B-10	PA

Category: NPW06--Metals - NPW Preparation Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW06.00050	Metals	TCLP, Toxicity Procedure, Shaker	SW-846 1311	PA
Certified	Yes	NPW06.00100	Metals	Synthetic PPT Leachate Procedure	SW-846 1312	PA
Certified	Yes	NPW06.00200	Metals, Total Rec and Dissolved	Acid Digestion/Surface and Groundwater	SW-846 3005A	PA
Certified	Yes	NPW06.00250	Metals, Total	Acid Digestion/Aqueous Samples	SW-846 3010A	PA
Certified	Yes	NPW06.00350	Metals	Acid Digestion/Aqueous	SW-846 3020A	PA

Category: NPW07--Metals

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW07.03200	Chromium (VI)	0.45u Filter, Ion Chromatography	EPA 218.6	PA

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Category: NPW07--Metals

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW07.03350	Mercury	Manual Cold Vapor	EPA 245.1	PA
Certified	Yes	NPW07.08650	Chromium (VI)	0.45u Filter, Colorimetric DPC	SM 3500-Cr B-11	PA
Certified	Yes	NPW07.08850	Iron, Ferrous	Digestion, Colorimetric (Phenanthroline)	SM 3500-Fe B-11	PA
Certified	Yes	NPW07.09300	Silica - dissolved	0.45u Filtration + Colorimetric (Manual)	SM 4500-SiO2 C-11	PA
Certified	Yes	NPW07.11950	Chromium (VI)	Colorimetric	SW-846 7196A	PA
Certified	Yes	NPW07.12100	Chromium (VI)	Ion Chromatography	SW-846 7199	PA
Certified	Yes	NPW07.12150	Mercury - liquid waste	AA, Manual Cold Vapor	SW-846 7470A	PA

Category: NPW08--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW08.04150	Aluminum	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04200	Antimony	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04250	Arsenic	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04300	Barium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04350	Beryllium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04400	Boron	ICP	EPA 200.7	PA
Certified	Yes	NPW08.04450	Cadmium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04500	Calcium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04550	Chromium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04600	Cobalt	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04650	Copper	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04700	Iron	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04750	Lead	Digestion, ICP	EPA 200.7	PA

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Category: NPW08--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW08.04800	Lithium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04850	Magnesium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04900	Manganese	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.04950	Molybdenum	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05000	Nickel	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05100	Potassium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05150	Selenium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05250	Silver	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05300	Sodium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05350	Strontium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05400	Thallium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05450	Tin	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05500	Titanium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05550	Vanadium	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05600	Zinc	Digestion, ICP	EPA 200.7	PA
Certified	Yes	NPW08.05650	Aluminum	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.05700	Antimony	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.05750	Arsenic	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.05800	Barium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.05850	Beryllium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.05950	Cadmium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06000	Calcium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06050	Chromium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06100	Cobalt	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06150	Copper	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06250	Iron	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06300	Lead	Digestion, ICP/MS	EPA 200.8	PA

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Category: NPW08--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW08.06350	Magnesium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06400	Manganese	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06450	Molybdenum	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06500	Nickel	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06550	Potassium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06600	Selenium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06700	Silver	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06750	Sodium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06800	Strontium	ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06850	Thallium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.06950	Tin	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.07000	Titanium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.07100	Uranium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.07150	Vanadium	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.07200	Zinc	Digestion, ICP/MS	EPA 200.8	PA
Certified	Yes	NPW08.12800	Aluminum	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.12850	Antimony	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.12900	Arsenic	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.12950	Barium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13000	Beryllium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13050	Boron	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13100	Cadmium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13150	Calcium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13200	Chromium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13250	Cobalt	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13300	Copper	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13350	Iron	ICP	SW-846 6010D	PA

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Category: NPW08--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW08.13400	Lead	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13450	Lithium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13500	Magnesium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13550	Manganese	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13600	Molybdenum	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13650	Nickel	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13750	Potassium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13800	Selenium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13850	Silver	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13900	Sodium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.13950	Strontium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14000	Thallium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14050	Thorium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14100	Tin	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14150	Titanium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14250	Vanadium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14300	Zinc	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14350	Zirconium	ICP	SW-846 6010D	PA
Certified	Yes	NPW08.14400	Aluminum	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14450	Antimony	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14500	Arsenic	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14550	Barium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14600	Beryllium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14700	Cadmium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14750	Calcium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14800	Chromium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14850	Cobalt	ICP/MS	SW-846 6020B	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW08--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW08.14900	Copper	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.14950	Iron	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15000	Lead	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15050	Magnesium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15100	Manganese	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15150	Molybdenum	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15200	Nickel	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15250	Potassium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15300	Selenium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15400	Silver	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15450	Sodium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15500	Strontium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15550	Thallium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15650	Tin	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15700	Titanium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15800	Uranium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15850	Vanadium	ICP/MS	SW-846 6020B	PA
Certified	Yes	NPW08.15900	Zinc	ICP/MS	SW-846 6020B	PA

Category: NPW09--Organics - NPW Preparation Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW09.00250	Organics	Synthetic PPT Leachate Procedure	SW-846 1312	PA
Certified	Yes	NPW09.00450	Semivolatile organics	TCLP, Toxicity Procedure, Shaker	SW-846 1311	PA

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Category: NPW09--Organics - NPW Preparation Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW09.00500	Semivolatile organics	Separatory Funnel Extraction	SW-846 3510C	PA
Certified	Yes	NPW09.00550	Semivolatile organics	Microscale Solvent Extraction - Aqueous	SW-846 3511	PA
Certified	Yes	NPW09.00850	Semivolatile organics	Cleanup-Florisl	SW-846 3620C	PA
Certified	Yes	NPW09.00900	Semivolatile organics	Cleanup-Silica Gel	SW-846 3630C	PA
Certified	Yes	NPW09.00950	Semivolatile organics	Cleanup-Gel Permeation	SW-846 3640A	PA
Certified	Yes	NPW09.01050	Semivolatile organics	Cleanup-Sulfur Removal	SW-846 3660B	PA
Certified	Yes	NPW09.01350	Volatile organics	TCLP, Toxicity Procedure, ZHE	SW-846 1311	PA
Certified	Yes	NPW09.01550	Volatile organics	Purge & Trap Aqueous	SW-846 5030C	PA

Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.10000	Acetonitrile	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10050	Diethylamine	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10100	Dimethyl sulfoxide	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10150	Ethanol	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10200	Methoxyethanol (2-) (methyl cellosolve)	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10250	Methyl alcohol (Methanol)	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10300	Propyl Alcohol (n-)	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.10350	Triethylamine	GC, Direct Injection, FID	EPA 1671A	PA
Certified	Yes	NPW10.19150	Aldrin	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.19200	Alpha BHC	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.19300	Beta BHC	Extract/GC (ECD)	EPA 608.3	PA

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Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.19650	Chlordane	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.19700	Chlordane (alpha) (cis-)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.19750	Chlordane (gamma) (trans-)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20050	DDD (4,4'-)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20100	DDE (4,4'-)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20150	DDT (4,4'-)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20200	Delta BHC	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20350	Dieldrin	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20400	Endosulfan I	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20450	Endosulfan II	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20500	Endosulfan sulfate	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20550	Endrin	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20600	Endrin aldehyde	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20650	Endrin ketone	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20800	Heptachlor	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.20850	Heptachlor epoxide	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21000	Lindane (gamma BHC)	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21050	Methoxychlor	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21200	Mirex	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21800	Toxaphene	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21900	PCB 1016	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.21950	PCB 1221	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.22000	PCB 1232	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.22050	PCB 1242	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.22100	PCB 1248	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.22150	PCB 1254	Extract/GC (ECD)	EPA 608.3	PA
Certified	Yes	NPW10.22200	PCB 1260	Extract/GC (ECD)	EPA 608.3	PA

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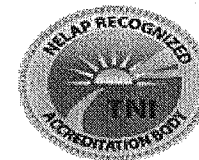
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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
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Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.31350	Butane	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31400	Ethane	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31450	Ethene	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31500	Isobutane	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31550	Methane	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31600	Propane	GC, Headspace, FID	Other J. Chrom. Sci. RSK-175	PA
Certified	Yes	NPW10.31650	Extractable Petroleum Hydrocarbons	Extraction, GC, FID	Other NJDEP EPH 10/08, Rev. 3	NJ
Certified	Yes	NPW10.39250	Dibromo-3-chloropropane (1,2-)	Extract/GC (ECD)	SW-846 8011	PA
Certified	Yes	NPW10.39300	Dibromoethane (1,2-) (EDB)	Extract/GC (ECD)	SW-846 8011	PA
Certified	Yes	NPW10.39650	Butanol (1-)	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	NPW10.39800	Diesel range organic	Extraction, GC, FID	SW-846 8015D	PA
Certified	Yes	NPW10.39850	Diethylene glycol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40000	Ethyl alcohol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40050	Ethylene glycol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40200	Gasoline range organic	GC P&T, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40300	Iso-butyl alcohol	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40350	Isopropyl alcohol	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40400	Methyl alcohol (Methanol)	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40750	Propyl Alcohol (n-)	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	NPW10.40800	Propylene glycol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.41100	Triethylene glycol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	NPW10.44600	Aldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.44650	Alpha BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.44750	Beta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.44800	Chlordane (alpha) (cis-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA

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Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.44850	Chlordane (gamma) (trans-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.44900	Chlordane (technical)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45250	DDD (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45300	DDE (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45350	DDT (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45400	Delta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45450	Dieldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45500	Endosulfan I	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45550	Endosulfan II	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45600	Endosulfan sulfate	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45650	Endrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45700	Endrin aldehyde	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45750	Endrin ketone	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45850	Heptachlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.45900	Heptachlor epoxide	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.46050	Lindane (gamma BHC)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.46100	Methoxychlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.46250	Mirex	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.46450	Toxaphene	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	NPW10.47600	PCB 1016	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47650	PCB 1221	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47700	PCB 1232	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47750	PCB 1242	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47800	PCB 1248	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47850	PCB 1254	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47900	PCB 1260	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.47950	PCB 1262	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA

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LANCASTER PA 176015994

Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.48000	PCB 1268	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	NPW10.55350	D (2,4-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55400	Dalapon	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55450	DB (2,4-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55550	Dicamba	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55650	Dichlorprop	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55700	Dinoseb	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55800	MCPA	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55850	MCPP	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.55950	Pentachlorophenol	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.56000	Picloram	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.56050	T (2,4,5-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.56100	TP (2,4,5-) (Silvex)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	NPW10.56950	Acetaldehyde	HPLC, Extraction, Derivatization	SW-846 8315A	PA
Certified	Yes	NPW10.57050	Formaldehyde	HPLC, Extraction, Derivatization	SW-846 8315A	PA
Certified	Yes	NPW10.58650	Dinitrobenzene (1,3-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58700	Dinitrotoluene (2,4-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58750	Dinitrotoluene (2,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58800	Dinitrotoluene (2-amino-4,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58850	Dinitrotoluene (4-amino-2,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58900	HMX	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.58950	Nitrobenzene	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59000	Nitroglycerine	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59050	Nitrotoluene (2-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59100	Nitrotoluene (3-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59150	Nitrotoluene (4-)	HPLC, UV Detector	SW-846 8330B	PA

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Category: NPW10--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW10.59200	PETN	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59250	RDX	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59300	Tetryl	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59350	Trinitrobenzene (1,3,5-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	NPW10.59400	Trinitrotoluene (2,4,6-)	HPLC, UV Detector	SW-846 8330B	PA

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.00300	HpCDD (1,2,3,4,6,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00350	HpCDF (1,2,3,4,6,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00400	HpCDF (1,2,3,4,7,8,9-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00450	HxCDD (1,2,3,4,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00500	HxCDD (1,2,3,6,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00550	HxCDD (1,2,3,7,8,9-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00600	HxCDF (1,2,3,4,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00650	HxCDF (1,2,3,6,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00700	HxCDF (1,2,3,7,8,9-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00750	HxCDF (2,3,4,6,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00800	OCDD (1,2,3,4,6,7,8,9-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00850	OCDF (1,2,3,4,6,7,8,9-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00900	PeCDD (1,2,3,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.00950	PeCDF (1,2,3,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.01000	PeCDF (2,3,4,7,8-)	GC/HI-Res MS, Selected Ion Monitoring	EPA 1613B	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.01050	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.01100	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	NPW11.12050	Amyl acetate (n-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12100	Amyl alcohol (n-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12150	Butyl acetate (n-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12200	Ethyl acetate	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12250	Heptane (n-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12300	Hexane (n-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12350	Isobutyraldehyde	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12400	Isopropanol	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12450	Isopropyl acetate	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12500	Isopropyl ether	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12550	Methyl formate	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12600	Methyl isobutyl ketone (MIBK)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12650	Tert-butyl alcohol	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12700	Tetrahydrofuran	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12750	Xylene (m- + p-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12800	Xylene (o-)	P & T, GC/MS Isotope Dilution	EPA 1666A	PA
Certified	Yes	NPW11.12850	Chlorobiphenyl (2-) (PCB 1)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.12900	Chlorobiphenyl (3-) (PCB 2)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.12950	Chlorobiphenyl (4-) (PCB 3)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13000	Dichlorobiphenyl (2,2'-) (PCB 4)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13050	Dichlorobiphenyl (2,3-) (PCB 5)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.13100	Dichlorobiphenyl (2,3'-) (PCB 6)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13150	Dichlorobiphenyl (2,4'-) (PCB 7)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13200	Dichlorobiphenyl (2,4'-) (PCB 8)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13250	Dichlorobiphenyl (2,5'-) (PCB 9)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13300	Dichlorobiphenyl (2,6'-) (PCB 10)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13350	Dichlorobiphenyl (3,3'-) (PCB 11)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13400	Dichlorobiphenyl (3,4'-) (PCB 12)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13450	Dichlorobiphenyl (3,4'-) (PCB 13)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13500	Dichlorobiphenyl (3,5'-) (PCB 14)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13550	Dichlorobiphenyl (4,4'-) (PCB 15)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13600	Trichlorobiphenyl (2,2',3'-) (PCB 16)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13650	Trichlorobiphenyl (2,2',4'-) (PCB 17)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13700	Trichlorobiphenyl (2,2',5'-) (PCB 18)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13750	Trichlorobiphenyl (2,2',6'-) (PCB 19)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13800	Trichlorobiphenyl (2,3,3'-) (PCB 20)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13850	Trichlorobiphenyl (2,3,4'-) (PCB 21)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.13900	Trichlorobiphenyl (2,3,4'-) (PCB 22)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.13950	Trichlorobiphenyl (2,3,5-) (PCB 23)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14000	Trichlorobiphenyl (2,3,6-) (PCB 24)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14050	Trichlorobiphenyl (2,3',4-) (PCB 25)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14100	Trichlorobiphenyl (2,3',5-) (PCB 26)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14150	Trichlorobiphenyl (2,3',6-) (PCB 27)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14200	Trichlorobiphenyl (2,4,4'-) (PCB 28)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14250	Trichlorobiphenyl (2,4,5-) (PCB 29)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14300	Trichlorobiphenyl (2,4,6-) (PCB 30)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14350	Trichlorobiphenyl (2,4',5-) (PCB 31)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14400	Trichlorobiphenyl (2,4',6-) (PCB 32)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14450	Trichlorobiphenyl (2,3', 4'-) (PCB 33)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14500	Trichlorobiphenyl (2,3', 5'-) (PCB 34)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14550	Trichlorobiphenyl (3,3',4-) (PCB 35)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14600	Trichlorobiphenyl (3,3',5-) (PCB 36)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14650	Trichlorobiphenyl (3,4,4'-) (PCB 37)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14700	Trichlorobiphenyl (3,4,5-) (PCB 38)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14750	Trichlorobiphenyl (3,4',5-) (PCB 39)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.14800	Tetrachlorobiphenyl (2,2', 3,3'-) (PCB 40)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14850	Tetrachlorobiphenyl (2,2', 3,4'-) (PCB 41)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14900	Tetrachlorobiphenyl (2,2', 3,4'-) (PCB 42)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.14950	Tetrachlorobiphenyl (2,2', 3,5'-) (PCB 43)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15000	Tetrachlorobiphenyl (2,2', 3,5'-) (PCB 44)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15050	Tetrachlorobiphenyl (2,2', 3,6'-) (PCB 45)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15100	Tetrachlorobiphenyl (2,2', 3,6'-) (PCB 46)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15150	Tetrachlorobiphenyl (2,2', 4,4'-) (PCB 47)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15200	Tetrachlorobiphenyl (2,2', 4,5'-) (PCB 48)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15250	Tetrachlorobiphenyl (2,2', 4,5'-) (PCB 49)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15300	Tetrachlorobiphenyl (2,2', 4,6'-) (PCB 50)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15350	Tetrachlorobiphenyl (2,2', 4,6'-) (PCB 51)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15400	Tetrachlorobiphenyl (2,2', 5,5'-) (PCB 52)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15450	Tetrachlorobiphenyl (2,2', 5,6'-) (PCB 53)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15500	Tetrachlorobiphenyl (2,2', 6,6'-) (PCB 54)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15550	Tetrachlorobiphenyl (2,3,3',4'-) (PCB 55)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15600	Tetrachlorobiphenyl (2,3,3',4'-) (PCB 56)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.15650	Tetrachlorobiphenyl (2,3,3',5'-) (PCB 57)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15700	Tetrachlorobiphenyl (2,3,3',5'-) (PCB 58)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15750	Tetrachlorobiphenyl (2,3,3',6'-) (PCB 59)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15800	Tetrachlorobiphenyl (2,3,4,4'-) (PCB 60)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15850	Tetrachlorobiphenyl (2,3,4,5'-) (PCB 61)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15900	Tetrachlorobiphenyl (2,3,4,6'-) (PCB 62)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.15950	Tetrachlorobiphenyl (2,3,4',5'-) (PCB 63)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16000	Tetrachlorobiphenyl (2,3,4',6'-) (PCB 64)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16050	Tetrachlorobiphenyl (2,3,5,6'-) (PCB 65)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16100	Tetrachlorobiphenyl (2,3',4,4'-) (PCB 66)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16150	Tetrachlorobiphenyl (2,3',4,5'-) (PCB 67)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16200	Tetrachlorobiphenyl (2,3',4,5'-) (PCB 68)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16250	Tetrachlorobiphenyl (2,3',4,6'-) (PCB 69)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16300	Tetrachlorobiphenyl (2,3',4',5'-) (PCB 70)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16350	Tetrachlorobiphenyl (2,3',4',6'-) (PCB 71)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16400	Tetrachlorobiphenyl (2,3',5,5'-) (PCB 72)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16450	Tetrachlorobiphenyl (2,3',5',6'-) (PCB 73)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Certified	Yes	NPW11.16500	Tetrachlorobiphenyl (2,4,4',5'-) (PCB 74)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16550	Tetrachlorobiphenyl (2,4,4',6'-) (PCB 75)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16600	Tetrachlorobiphenyl (2,3',4',5'-) (PCB 76)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16650	Tetrachlorobiphenyl (3,3',4,4'-) (PCB 77)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16700	Tetrachlorobiphenyl (3,3',4,5'-) (PCB 78)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16750	Tetrachlorobiphenyl (3,3',4,5'-) (PCB 79)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16800	Tetrachlorobiphenyl (3,3',5,5'-) (PCB 80)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16850	Tetrachlorobiphenyl (3,4,4',5'-) (PCB 81)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16900	Pentachlorobiphenyl (2,2',3,3',4-) (PCB 82)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.16950	Pentachlorobiphenyl (2,2',3,3',5-) (PCB 83)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17000	Pentachlorobiphenyl (2,2',3,3',6-) (PCB 84)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17050	Pentachlorobiphenyl (2,2',3,4,4'-) (PCB 85)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17100	Pentachlorobiphenyl (2,2',3,4,5-) (PCB 86)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17150	Pentachlorobiphenyl (2,2',3,4,5'-) (PCB 87)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17200	Pentachlorobiphenyl (2,2',3,4,6-) (PCB 88)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17250	Pentachlorobiphenyl (2,2',3,4,6'-) (PCB 89)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17300	Pentachlorobiphenyl (2,2',3,4',5-) (PCB 90)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.17350	Pentachlorobiphenyl (2,2',3,4',6-) (PCB 91)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17400	Pentachlorobiphenyl (2,2',3,5,5'-) (PCB 92)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17450	Pentachlorobiphenyl (2,2',3,5,6-) (PCB 93)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17500	Pentachlorobiphenyl (2,2',3,5,6'-) (PCB 94)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17550	Pentachlorobiphenyl (2,2',3,5',6-) (PCB 95)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17600	Pentachlorobiphenyl (2,2',3,6,6'-) (PCB 96)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17650	Pentachlorobiphenyl (2,2',3,4',5'-) (PCB 97)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17700	Pentachlorobiphenyl (2,2',3,4',6'-) (PCB 98)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17750	Pentachlorobiphenyl (2,2',4,4',5-) (PCB 99)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17800	Pentachlorobiphenyl (2,2',4,4',6-) (PCB 100)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17850	Pentachlorobiphenyl (2,2',4,5,5'-) (PCB 101)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17900	Pentachlorobiphenyl (2,2',4,5,6'-) (PCB 102)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.17950	Pentachlorobiphenyl (2,2',4,5',6-) (PCB 103)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18000	Pentachlorobiphenyl (2,2',4,6,6'-) (PCB 104)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18050	Pentachlorobiphenyl (2,3,3',4,4'-) (PCB 105)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18100	Pentachlorobiphenyl (2,3,3',4,5-) (PCB 106)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18150	Pentachlorobiphenyl (2,3,3',4',5-) (PCB 107)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.18200	Pentachlorobiphenyl (2,3,3',4,5'-) (PCB 108)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18250	Pentachlorobiphenyl (2,3,3',4,6-) (PCB 109)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18300	Pentachlorobiphenyl (2,3,3',4',6-) (PCB 110)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18350	Pentachlorobiphenyl (2,3,3',5,5'-) (PCB 111)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18400	Pentachlorobiphenyl (2,3,3',5,6-) (PCB 112)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18450	Pentachlorobiphenyl (2,3,3',5',6-) (PCB 113)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18500	Pentachlorobiphenyl (2,3,4,4',5-) (PCB 114)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18550	Pentachlorobiphenyl (2,3,4,4',6-) (PCB 115)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18600	Pentachlorobiphenyl (2,3,4,5,6-) (PCB 116)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18650	Pentachlorobiphenyl (2,3,4',5,6-) (PCB 117)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18700	Pentachlorobiphenyl (2,3',4,4',5-) (PCB 118)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18750	Pentachlorobiphenyl (2,3',4,4',6-) (PCB 119)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18800	Pentachlorobiphenyl (2,3',4,5,5'-) (PCB 120)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18850	Pentachlorobiphenyl (2,3',4,5',6-) (PCB 121)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18900	Pentachlorobiphenyl (2,3,3',4',5'-) (PCB 122)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.18950	Pentachlorobiphenyl (2,3',4,4',5'-) (PCB 123)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19000	Pentachlorobiphenyl (2,3',4',5,5'-) (PCB 124)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.19050	Pentachlorobiphenyl (2,3',4',5',6-) (PCB 125)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19100	Pentachlorobiphenyl (3,3',4,4',5-) (PCB 126)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19150	Pentachlorobiphenyl (3,3',4,5,5'-) (PCB 127)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19200	Hexachlorobiphenyl (2,2',3,3',4,4'-) (PCB 128)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19250	Hexachlorobiphenyl (2,2',3,3',4,5-) (PCB 129)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19300	Hexachlorobiphenyl (2,2',3,3',4,5'-) (PCB 130)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19350	Hexachlorobiphenyl (2,2',3,3',4,6-) (PCB 131)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19400	Hexachlorobiphenyl (2,2',3,3',4,6'-) (PCB 132)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19450	Hexachlorobiphenyl (2,2',3,3',5,5'-) (PCB 133)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19500	Hexachlorobiphenyl (2,2',3,3',5,6-) (PCB 134)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19550	Hexachlorobiphenyl (2,2',3,3',5,6'-) (PCB 135)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19600	Hexachlorobiphenyl (2,2',3,3',6,6'-) (PCB 136)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19650	Hexachlorobiphenyl (2,2',3,4,4',5-) (PCB 137)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19700	Hexachlorobiphenyl (2,2',3,4,4',5'-) (PCB 138)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19750	Hexachlorobiphenyl (2,2',3,4,4',6-) (PCB 139)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19800	Hexachlorobiphenyl (2,2',3,4,4',6'-) (PCB 140)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19850	Hexachlorobiphenyl (2,2',3,4,5,5'-) (PCB 141)	Extraction, SIM, GC/MS	EPA 1668A	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.19900	Hexachlorobiphenyl (2,2', 3,4,5,6-) (PCB 142)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.19950	Hexachlorobiphenyl (2,2', 3,4,5,6-) (PCB 143)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20000	Hexachlorobiphenyl (2,2', 3,4,5,6-) (PCB 144)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20050	Hexachlorobiphenyl (2,2', 3,4,6,6-) (PCB 145)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20100	Hexachlorobiphenyl (2,2', 3,4',5,5-) (PCB 146)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20150	Hexachlorobiphenyl (2,2', 3,4',5,6-) (PCB 147)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20200	Hexachlorobiphenyl (2,2', 3,4',5,6-) (PCB 148)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20250	Hexachlorobiphenyl (2,2', 3,4',5',6-) (PCB 149)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20300	Hexachlorobiphenyl (2,2', 3,4',6,6-) (PCB 150)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20350	Hexachlorobiphenyl (2,2', 3,5,5',6-) (PCB 151)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20400	Hexachlorobiphenyl (2,2', 3,5,6,6-) (PCB 152)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20450	Hexachlorobiphenyl (2,2', 4,4',5,5-) (PCB 153)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20500	Hexachlorobiphenyl (2,2', 4,4',5,6-) (PCB 154)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20550	Hexachlorobiphenyl (2,2', 4,4',6,6-) (PCB 155)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20600	Hexachlorobiphenyl (2,3,3',4,4',5-) (PCB 156)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20650	Hexachlorobiphenyl (2,3,3',4,4',5-) (PCB 157)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20700	Hexachlorobiphenyl (2,3,3',4,4',6-) (PCB 158)	Extraction, SIM, GC/MS	EPA 1668A	PA

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LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.20750	Hexachlorobiphenyl (2,3,3',4,5,5'-) (PCB 159)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20800	Hexachlorobiphenyl (2,3,3',4,5,6-) (PCB 160)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20850	Hexachlorobiphenyl (2,3,3',4,5',6-) (PCB 161)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20900	Hexachlorobiphenyl (2,3,3',4',5,5'-) (PCB 162)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.20950	Hexachlorobiphenyl (2,3,3',4',5,6-) (PCB 163)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21000	Hexachlorobiphenyl (2,3,3',4',5',6-) (PCB 164)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21050	Hexachlorobiphenyl (2,3,3',5,5',6-) (PCB 165)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21100	Hexachlorobiphenyl (2,3,4,4',5,6-) (PCB 166)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21150	Hexachlorobiphenyl (2,3',4,4',5,5'-) (PCB 167)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21200	Hexachlorobiphenyl (2,3',4,4',5',6-) (PCB 168)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21250	Hexachlorobiphenyl (3,3',4,4',5,5'-) (PCB 169)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21300	Heptachlorobiphenyl (2,2',3,3',4,4',5-) (PCB 170)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21350	Heptachlorobiphenyl (2,2',3,3',4,4',6-) (PCB 171)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21400	Heptachlorobiphenyl (2,2',3,3',4,5,5'-) (PCB 172)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21450	Heptachlorobiphenyl (2,2',3,3',4,5,6-) (PCB 173)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.21500	Heptachlorobiphenyl (2,2',3,3',4,5,6'-) (PCB 174)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21550	Heptachlorobiphenyl (2,2',3,3',4,5',6-) (PCB 175)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21600	Heptachlorobiphenyl (2,2',3,3',4,6,6'-) (PCB 176)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21650	Heptachlorobiphenyl (2,2',3,3',4,5',6'-) (PCB 177)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21700	Heptachlorobiphenyl (2,2',3,3',5,5',6-) (PCB 178)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21750	Heptachlorobiphenyl (2,2',3,3',5,6,6'-) (PCB 179)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21800	Heptachlorobiphenyl (2,2',3,4,4',5,5'-) (PCB 180)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21850	Heptachlorobiphenyl (2,2',3,4,4',5,6-) (PCB 181)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21900	Heptachlorobiphenyl (2,2',3,4,4',5,6'-) (PCB 182)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.21950	Heptachlorobiphenyl (2,2',3,4,4',5',6-) (PCB 183)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22000	Heptachlorobiphenyl (2,2',3,4,4',6,6'-) (PCB 184)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22050	Heptachlorobiphenyl (2,2',3,4,5,5',6-) (PCB 185)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.22100	Heptachlorobiphenyl (2,2',3,4,5,6,6'-) (PCB 186)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22150	Heptachlorobiphenyl (2,2',3,4',5,5',6-) (PCB 187)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22200	Heptachlorobiphenyl (2,2',3,4',5,6,6'-) (PCB 188)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22250	Heptachlorobiphenyl (2,3,3',4,4',5,5'-) (PCB 189)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22300	Heptachlorobiphenyl (2,3,3',4,4',5,6-) (PCB 190)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22350	Heptachlorobiphenyl (2,3,3',4,4',5',6-) (PCB 191)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22400	Heptachlorobiphenyl (2,3,3',4,5,5',6-) (PCB 192)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22450	Heptachlorobiphenyl (2,3,3',4',5,5',6-) (PCB 193)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22500	Octachlorobiphenyl (2,2',3,3',4,4',5,5'-) (PCB 194)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22550	Octachlorobiphenyl (2,2',3,3',4,4',5,6-) (PCB 195)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22600	Octachlorobiphenyl (2,2',3,3',4,4',5,6'-) (PCB 196)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22650	Octachlorobiphenyl (2,2',3,3',4,4',6,6'-) (PCB 197)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22700	Octachlorobiphenyl (2,2',3,3',4,5,5',6-) (PCB 198)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22750	Octachlorobiphenyl (2,2',3,3',4,5,5',6'-) (PCB 199)	Extraction, SIM, GC/MS	EPA 1668A	PA

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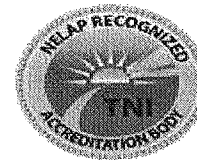
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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.22800	Octachlorobiphenyl (2,2', 3,3',4,5,6,6'-) (PCB 200)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22850	Octachlorobiphenyl (2,2', 3,3',4,5',6,6'-) (PCB 201)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22900	Octachlorobiphenyl (2,2', 3,3',5,5',6,6'-) (PCB 202)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.22950	Octachlorobiphenyl (2,2', 3,4,4',5,5',6-) (PCB 203)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23000	Octachlorobiphenyl (2,2', 3,4,4',5,6,6'-) (PCB 204)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23050	Octachlorobiphenyl (2,3,3',4,4',5,5',6-) (PCB 205)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23100	Nonachlorobiphenyl (2,2', 3,3',4,4',5,5',6-) (PCB 206)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23150	Nonachlorobiphenyl (2,2', 3,3',4,4',5,6,6'-) (PCB 207)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23200	Nonachlorobiphenyl (2,2', 3,3',4,5,5',6,6'-) (PCB 208)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.23250	Decachlorobiphenyl (PCB 209)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	NPW11.33800	Acetone [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.33850	Benzene [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.33900	Chlorobenzene [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.33950	Chloroform [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.34000	Dichlorobenzene (1,2-) [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.34050	Dichloroethane (1,2-) [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.34100	Methylene chloride [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.34150	Pentanone (4-methyl-2-) (MIBK) [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.34200	Tetrahydrofuran [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.34250	Toluene [40CFR136, Table 1F]	GC/MS, P & T	EPA 524.2	PA
Certified	Yes	NPW11.38400	Acetone	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38450	Acetonitrile	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38500	Acrolein	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38550	Acrylonitrile	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38750	Benzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38800	Bromobenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38850	Bromochloromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.38900	Bromodichloromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39000	Bromoform	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39050	Bromomethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39100	Butadiene (2-chloro-1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39200	Butanone (2-) (Methyl ethyl ketone)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39250	Butyl acetate (n-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39400	Butylbenzene (n-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39450	Carbon disulfide	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39500	Carbon tetrachloride	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39550	Chlorobenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39600	Chloroethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA

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Certified	Yes	NPW11.39650	Chloroethyl vinyl ether (2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39700	Chloroform	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39750	Chloromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39800	Chlorotoluene (2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39850	Chlorotoluene (4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.39950	Cyclohexane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40050	Dibromo-3-chloropropane (1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40100	Dibromochloromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40105	Dibromoethane (1,2-) (EDB)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40200	Dibromomethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40250	Dichloro-2-butene (cis-1,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40300	Dichloro-2-butene (trans-1,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40350	Dichlorobenzene (1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40400	Dichlorobenzene (1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40450	Dichlorobenzene (1,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40500	Dichlorodifluoromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40550	Dichloroethane (1,1-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40600	Dichloroethane (1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40650	Dichloroethene (1,1-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40700	Dichloroethene (cis-1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40750	Dichloroethene (trans-1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40800	Dichloropropane (1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40850	Dichloropropane (1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.40900	Dichloropropane (2,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA

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Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.40950	Dichloropropene (1,1-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41000	Dichloropropene (cis-1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41050	Dichloropropene (trans-1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41150	Diisopropyl Ether (DIPE)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41200	Dioxane (1,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41350	Ethyl acetate	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41400	Ethyl methacrylate	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41450	Ethylbenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41500	Ethyl-tert-butyl Ether (ETBE)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41550	Heptane (n-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41600	Hexachlorobutadiene (1,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41650	Hexane (n-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41700	Hexanone (2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41750	Iso-butyl alcohol	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41850	Isopropanol	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.41900	Isopropyl acetate	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42000	Isopropylbenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42050	Isopropyltoluene (4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42100	Methacrylonitrile	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42300	Methyl iodide	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42350	Methyl isobutyl ketone (MIBK)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42400	Methyl methacrylate	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42450	Methyl tert-butyl ether	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42550	Methylene chloride (Dichloromethane)	GC/MS, P & T, Capillary Column	EPA 624.1	PA

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Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.42600	Naphthalene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42800	Propionitrile	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42900	Propylbenzene (n-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.42950	Sec-butylbenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43000	Styrene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43050	tert-Amylmethyl ether (TAME)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43150	Tert-butyl alcohol	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43200	Tert-butylbenzene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43250	Tetrachloroethane (1,1,1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43300	Tetrachloroethane (1,1,2,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43350	Tetrachloroethene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43400	Tetrahydrofuran	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43450	Toluene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43500	Trichloro (1,1,2-) trifluoroethane (1,2,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43550	Trichlorobenzene (1,2,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43600	Trichlorobenzene (1,2,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43650	Trichloroethane (1,1,1-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43700	Trichloroethane (1,1,2-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43750	Trichloroethene	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43800	Trichlorofluoromethane	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43850	Trichloropropane (1,2,3-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.43950	Trimethylbenzene (1,2,4-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44000	Trimethylbenzene (1,3,5-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44050	Vinyl acetate	GC/MS, P & T, Capillary Column	EPA 624.1	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.44100	Vinyl chloride	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44150	Xylene (m- + p-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44250	Xylene (o-)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44350	Xylenes (total)	GC/MS, P & T, Capillary Column	EPA 624.1	PA
Certified	Yes	NPW11.44400	Acenaphthene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.44450	Acenaphthylene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.44500	Acetophenone	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.44650	Alpha - terpineol	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.44800	Aniline	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.44850	Anthracene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45200	Benzidine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45250	Benzo(a)anthracene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45300	Benzo(a)pyrene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45350	Benzo(b)fluoranthene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45400	Benzo(ghi)perylene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45500	Benzo(k)fluoranthene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45550	Benzoic acid	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45600	Benzyl alcohol	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45700	Bis (2-chloroethoxy) methane	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45750	Bis (2-chloroethyl) ether	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45800	Bis(2-chloroisopropyl) ether 2,2'-oxybis(1-chloropropane)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.45850	Bis (2-ethylhexyl) phthalate	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46000	Bromophenyl-phenyl ether (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46050	Butylbenzylphthalate	Extract, GC/MS	EPA 625.1	PA

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LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.46250	Carbazole	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46400	Chloroaniline (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46550	Chloronaphthalene (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46650	Chlorophenol (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46700	Chlorophenyl-phenyl ether (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.46900	Chrysene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47050	Decane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47500	Dibenzo(a,h)anthracene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47650	Dibenzofuran	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47700	Dichloroaniline (2,3-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47750	Dichlorobenzidine (3,3'-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47800	Dichlorophenol (2,4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47850	Dichlorophenol (2,6-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.47950	Diethyl phthalate	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48100	Dimethyl phthalate	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48250	Dimethylphenol (2,4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48300	Di-n-butyl phthalate	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48400	Dinitrophenol (2,4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48450	Dinitrophenol (2-methyl-4,6-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48500	Dinitrotoluene (2,4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48550	Dinitrotoluene (2,6-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48600	Di-n-octyl phthalate	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48700	Diphenylhydrazine / Azobenzene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.48800	Docosane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49000	Eicosane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49250	Fluoranthene	Extract, GC/MS	EPA 625.1	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.49300	Fluorene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49350	Hexachlorobenzene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49400	Hexachlorobutadiene (1,3-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49450	Hexachlorocyclopentadiene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49500	Hexachloroethane	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49650	Hexadecane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49700	Indeno(1,2,3-cd)pyrene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.49800	Isophorone	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50350	Methyl phenol (4-chloro-3-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50430	Methylnaphthalene (1-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50450	Methylnaphthalene (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50500	Methylphenanthrene (1-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50550	Methylphenol (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50600	Methylphenol (3-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50650	Methylphenol (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.50950	Naphthalene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51150	Nitroaniline (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51200	Nitroaniline (3-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51250	Nitroaniline (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51300	Nitrobenzene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51350	Nitrophenol (2-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51400	Nitrophenol (4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51450	N-Nitrosodiethylamine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51500	N-Nitrosodimethylamine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51530	N-Nitroso-di-n-butylamine	Extract, GC/MS	EPA 625.1	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.51550	N-Nitroso-di-n-propylamine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51600	N-Nitrosodiphenylamine / Diphenylamine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51800	N-Nitrosopyrrolidine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.51900	Octadecane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.52400	Pentachlorobenzene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.52550	Pentachlorophenol	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.52700	Phenanthrene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.52750	Phenol	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.53400	Pyrene	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.53450	Pyridine	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55100	Tetrachlorobenzene (1,2,4,5-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55150	Tetrachlorophenol (2,3,4,6-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55200	Tetradecane (n-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55250	Toluidine (2-) (2-Methylaniline)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55400	Trichlorobenzene (1,2,4-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55500	Trichlorophenol (2,4,5-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.55550	Trichlorophenol (2,4,6-)	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.56550	Pentachlorophenol	Extract, GC/MS	EPA 625.1	PA
Certified	Yes	NPW11.68750	Acetone	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.68800	Acetonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.68850	Acrolein	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.68900	Acrylonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.68950	Allyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69100	Benzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

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2425 NEW HOLLAND PK
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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.69150	Benzyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69200	Bromobenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69250	Bromochloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69300	Bromodichloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69400	Bromoform	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69450	Bromomethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69500	Butadiene (2-chloro-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69550	Butanol (1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69650	Butanone (2-) (Methyl ethyl ketone)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69850	Butylbenzene (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69900	Carbon disulfide	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.69950	Carbon tetrachloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70000	Chlorobenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70050	Chloroethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70100	Chloroethyl vinyl ether (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70150	Chloroform	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70200	Chloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70250	Chlorotoluene (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70300	Chlorotoluene (4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70400	Cyclohexane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70500	Dibromo-3-chloropropane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70550	Dibromochloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70600	Dibromoethane (1,2-) (EDB)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70650	Dibromomethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

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Certified	Yes	NPW11.70750	Dichloro-2-butene (trans-1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70800	Dichlorobenzene (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70850	Dichlorobenzene (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70900	Dichlorobenzene (1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.70950	Dichlorodifluoromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71000	Dichloroethane (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71050	Dichloroethane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71100	Dichloroethene (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71150	Dichloroethene (cis-1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71200	Dichloroethene (trans-1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71250	Dichloropropane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71300	Dichloropropane (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71350	Dichloropropane (2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71400	Dichloropropene (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71450	Dichloropropene (cis-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71500	Dichloropropene (trans-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71550	Diethyl ether (Ethyl ether)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71600	Diisopropyl Ether (DIPE)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71650	Dioxane (1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71700	Ethanol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71800	Ethyl acetate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71850	Ethyl methacrylate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71900	Ethylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.71950	Ethyl-tert-butyl Ether (ETBE)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.72000	Heptane (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72050	Hexachlorobutadiene (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72150	Hexane (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72200	Hexanone (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72250	Iso-butyl alcohol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72300	Isopropanol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72400	Isopropylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72450	Isopropyltoluene (4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72500	Methacrylonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72550	Methyl acetate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72650	Methyl iodide	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72700	Methyl methacrylate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72750	Methyl tert-butyl ether	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72800	Methylcyclohexane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.72850	Methylene chloride (Dichloromethane)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73000	Naphthalene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73100	Nitropropane (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73250	Pentachloroethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73350	Pentanone (4-methyl-2-) (MIBK)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73400	Propionitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73450	Propylbenzene (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73500	Sec-butylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73550	Styrene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73600	tert-Amylmethyl ether (TAME)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73700	Tert-butyl alcohol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

**New Jersey Department of Environment Protection
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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.73750	Tert-butylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73800	Tetrachloroethane (1,1,1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73850	Tetrachloroethane (1,1,2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73900	Tetrachloroethene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.73950	Tetrahydrofuran	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74000	Toluene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74100	Trichloro (1,1,2-) trifluoroethane (1,2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74150	Trichlorobenzene (1,2,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74200	Trichlorobenzene (1,2,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74250	Trichloroethane (1,1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74300	Trichloroethane (1,1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74350	Trichloroethene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74400	Trichlorofluoromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74450	Trichloropropane (1,2,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74500	Trimethylbenzene (1,2,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74550	Trimethylbenzene (1,2,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74600	Trimethylbenzene (1,3,5-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74700	Vinyl acetate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74750	Vinyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74800	Xylene (m-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74850	Xylene (o-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74900	Xylene (p-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.74950	Xylenes (total)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	NPW11.75150	Acenaphthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.75200	Acenaphthylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75250	Acetophenone	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75300	Acetylaminofluorene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75500	Aminobiphenyl (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75600	Aniline	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75650	Anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75750	Atrazine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75850	Benzaldehyde	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.75950	Benzidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76000	Benzo(a)anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76050	Benzo(a)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76100	Benzo(b)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76150	Benzo(ghi)perylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76250	Benzo(k)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76300	Benzoic acid	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76400	Benzyl alcohol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76550	Biphenyl (1,1'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76600	Bis (2-chloroethoxy) methane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76650	Bis (2-chloroethyl) ether	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76700	Bis(2-chloroisopropyl) ether[2,2'-oxybis(1-chloropropane)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76750	Bis (2-ethylhexyl) phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76800	Bromophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76850	Butylbenzylphthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.76900	Caprolactam	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.76950	Carbazole	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77150	Chloroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77200	Chlorobenzilate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77250	Chloronaphthalene (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77300	Chloronaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77350	Chlorophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77400	Chlorophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77450	Chrysene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77750	Diallate (cis)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77800	Diallate (trans)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77850	Dibenz(a,h)acridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.77900	Dibenz(a,j)acridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78000	Dibenzo(a,h)anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78200	Dibenzofuran	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78250	Dichlorobenzene (1,2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78300	Dichlorobenzene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78350	Dichlorobenzene (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78400	Dichlorobenzidine (3,3'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78450	Dichlorophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78500	Dichlorophenol (2,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78600	Diethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78650	Dimethoate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78700	Dimethyl benzidine (3,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78750	Dimethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.78800	Dimethylaminoazobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79050	Dimethylbenz(a)anthracene (7,12-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.79100	Dimethylphenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79150	Di-n-butyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79200	Dinitrobenzene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79250	Dinitrobenzene (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79300	Dinitrophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79350	Dinitrophenol (2-methyl-4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79400	Dinitrotoluene (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79450	Dinitrotoluene (2,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79500	Di-n-octyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79550	Dinoseb	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79600	Dioxane (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.79650	Diphenylhydrazine / Azobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80150	Fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80200	Fluorene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80350	Hexachlorobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80400	Hexachlorobutadiene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80450	Hexachlorocyclopentadiene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80500	Hexachloroethane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80600	Hexachloropropene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80700	Indene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80750	Indeno(1,2,3-cd)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80800	Isodrin	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80850	Isophorone	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80900	Isosafrole (cis-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.80950	Isosafrole (trans-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.81100	Methanesulfonate (Ethyl-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81150	Methanesulfonate (Methyl-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81300	Methyl phenol (4-chloro-3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81350	Methylcholanthrene (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81400	Methylnaphthalene (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81450	Methylnaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81500	Methylphenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81550	Methylphenol (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81600	Methylphenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81650	Naphthalene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81700	Napthoquinone (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81750	Napththylamine (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81800	Napththylamine (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81850	Nitroaniline (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81900	Nitroaniline (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.81950	Nitroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82000	Nitrobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82100	Nitrophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82150	Nitrophenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82200	N-Nitrosodiethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82250	N-Nitrosodimethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82300	N-Nitroso-di-n-butylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82350	N-Nitroso-di-n-propylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82400	N-Nitrosodiphenylamine / Diphenylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.82450	N-Nitrosomethylethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82500	N-Nitrosomorpholine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82550	N-Nitrosopiperidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82600	N-Nitrosopyrrolidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82700	Parathion	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.82750	Parathion methyl	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83150	Pentachlorobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83250	Pentachloronitrobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83300	Pentachlorophenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83350	Phenacetin	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83400	Phenanthrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83450	Phenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83600	Phorate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83650	Phosphorothioate (O,O,O-triethyl)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83700	Phosphorothioate (diethyl-O-2-pyrazinyl) [Thionazin]	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83750	Picoline (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83800	Pronamide	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83850	Pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83900	Pyridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.83950	Quinoline	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84000	Quinoline -1-Oxide (4-Nitro)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84100	Safrole	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84150	Sulfotepp	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84350	Tetrachlorobenzene (1,2,4,5-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.84400	Tetrachlorophenol (2,3,4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84450	Toluidine (2-) (2-Methylaniline)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84650	Trichlorobenzene (1,2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84700	Trichlorophenol (2,4,5-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84750	Trichlorophenol (2,4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84900	Acenaphthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.84950	Acenaphthylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85000	Anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85050	Benzo(a)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85100	Benzo(a)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85150	Benzo(b)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85200	Benzo(ghi)perylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85250	Benzo(k)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85300	Chrysene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85350	Dibenzo(a,h)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85550	Dioxane (1,4-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85600	Fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85650	Fluorene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85850	Indeno(1,2,3-cd)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.85950	Methylnaphthalene (1-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.86000	Methylnaphthalene (2-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.86050	Naphthalene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.86200	Phenanthrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.86250	Pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	NPW11.86350	HpCDD (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86400	HpCDF (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW11--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW11.86450	HpCDF (1,2,3,4,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86500	HxCDD (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86550	HxCDD (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86600	HxCDD (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86650	HxCDF (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86700	HxCDF (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86750	HxCDF (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86800	HxCDF (2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86850	OCDD (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86900	OCDF (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.86950	PeCDD (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87000	PeCDF (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87050	PeCDF (2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87100	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87150	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87200	Total HpCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87250	Total HpCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87300	Total HxCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87350	Total HxCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87400	Total PeCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87450	Total PeCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87500	Total TCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.87550	Total TCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	NPW11.89000	Perchlorate	LC/MS or LC/MS/MS	SW-846 6850	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW16--NPW - Lab Developed/Non-Std Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW16.05000	11-chloroelicosafuoro-3-oxaundecane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05050	1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05100	1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05150	1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05200	4,8-dioxa-3H-perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05250	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05300	Hexafluoropropylene oxide dimer acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05350	Perfluorobutanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05400	Perfluorobutanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05450	Perfluorodecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05500	Perfluorododecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05550	Perfluorodecanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05600	Perfluoroheptanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05650	Perfluoroheptanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: NPW16--NPW - Lab Developed/Non-Std Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	NPW16.05700	Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05750	Perfluorohexanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05800	Perfluorooctanesulfonic acid (PFOS)	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05850	Perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05900	Perfluorononanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.05950	Perfluorooctanoic acid (PFOA)	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06000	Perfluorooctanesulfonamide	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06050	Perfluoropentanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06100	Perfluoropentanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06150	Perfluoroundecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06200	Perfluorotetradecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06250	Perfluorotridecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06300	N-ethylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ
Certified	Yes	NPW16.06350	N-methylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP# T-PFAS-WI21398, Ver8	NJ

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Category: SCM02--Characteristics of Hazardous Waste

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM02.00450	Free liquid	Flow-Through Paint Filter, Observation	SW-846 9095B	PA
Certified	Yes	SCM02.00560	Ignitability	Pensky-Martin	SW-846 1010B	PA
Certified	Yes	SCM02.00800	pH - soil and waste	Mix with Water or Calcium Chlorides	SW-846 9045D	PA

Category: SCM03--Inorganic Parameters and Preparation

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM03.00300	Ammonia	Distillation, Titration	SM 4500-NH3 B plus C-11	PA
Certified	Yes	SCM03.00850	Chloride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	SCM03.00900	Chloride	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	SCM03.01250	Cyanide	Colorimetric, Automated	SW-846 9012B	PA
Certified	Yes	SCM03.01900	Fluoride	Ion Chromatography	EPA 300.0	PA
Certified	Yes	SCM03.01950	Fluoride	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	SCM03.02100	Inorganics	Shake, Extraction with Water	ASTM D3987-12	PA
Certified	Yes	SCM03.02450	Kjeldahl nitrogen - total	Digestion, Semi-automated	EPA 351.2	PA
Certified	Yes	SCM03.02650	Nitrate	Ion Chromatography	EPA 300.0	PA
Certified	Yes	SCM03.02700	Nitrate	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	SCM03.03050	Nitrite	Ion Chromatography	EPA 300.0	PA
Certified	Yes	SCM03.03100	Nitrite	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	SCM03.03200	Oil & grease - sludge-hem	Extraction & Gravimetric	SW-846 9071B	PA
Certified	Yes	SCM03.03250	Oil & grease - sludge-hem-npm	Extraction & Gravimetric	SW-846 9071B	PA
Certified	Yes	SCM03.03800	Phosphorus (total)	Auto Ascorbic Acid Reduction	EPA 365.1	PA
Certified	Yes	SCM03.03950	Specific conductance	Wheatstone Bridge	SW-846 9050A	PA

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Category: SCM03--Inorganic Parameters and Preparation

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM03.04150	Sulfate	Ion Chromatography	EPA 300.0	PA
Certified	Yes	SCM03.04200	Sulfate	Ion Chromatography	SW-846 9056A	PA
Certified	Yes	SCM03.04700	Total organic carbon (TOC)	Pyrolytic	Other Lloyd Kahn	PA
Certified	Yes	SCM03.05000	Total, fixed, and volatile solids (SQAR)	Gravimetric, 500 Degrees C	SM 2540 G SM 18th Ed.	PA

Category: SCM05--Metals - SCM Preparation Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM05.00050	Metals	Acid Digestion, Soil Sediment & Sludge	SW-846 3050B	PA
Certified	Yes	SCM05.00100	Metals	Chromium VI Digestion	SW-846 3060A	PA
Certified	Yes	SCM05.00500	Metals	Shake, Extraction with Water	ASTM D3987-12	PA
Certified	Yes	SCM05.00550	Metals	Synthetic PPT Leachate Procedure	SW-846 1312	PA
Certified	Yes	SCM05.00600	Metals	TCLP, Toxicity Procedure, Shaker	SW-846 1311	PA

Category: SCM06--Metals

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM06.02600	Chromium (VI)	Colorimetric	SW-846 7196A	PA
Certified	Yes	SCM06.02750	Chromium (VI)	Ion Chromatography	SW-846 7199	PA
Certified	Yes	SCM06.02800	Mercury - solid waste	AA, Manual Cold Vapor	SW-846 7471B	PA

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LANCASTER PA 176015994

Category: SCM07--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM07.00001	Aluminum	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00050	Antimony	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00100	Arsenic	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00150	Barium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00200	Beryllium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00250	Boron	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00300	Cadmium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00350	Calcium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00400	Chromium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00450	Cobalt	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00500	Copper	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00550	Iron	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00600	Lead	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00650	Lithium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00700	Magnesium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00750	Manganese	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00800	Molybdenum	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00850	Nickel	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.00950	Potassium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01000	Selenium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01050	Silver	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01100	Sodium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01150	Strontium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01200	Thallium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01250	Thorium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01300	Tin	ICP	SW-846 6010D	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM07--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM07.01350	Titanium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01450	Vanadium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01500	Zinc	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01550	Zirconium	ICP	SW-846 6010D	PA
Certified	Yes	SCM07.01600	Aluminum	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01650	Antimony	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01700	Arsenic	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01750	Barium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01800	Beryllium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01900	Cadmium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.01950	Calcium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02000	Chromium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02050	Cobalt	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02100	Copper	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02150	Iron	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02200	Lead	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02250	Magnesium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02300	Manganese	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02350	Molybdenum	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02400	Nickel	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02450	Potassium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02500	Selenium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02600	Silver	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02650	Sodium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02700	Strontium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02750	Thallium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.02850	Tin	ICP/MS	SW-846 6020B	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM07--Metals - ICP, ICP/MS and DCP

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM07.02900	Titanium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.03000	Uranium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.03050	Vanadium	ICP/MS	SW-846 6020B	PA
Certified	Yes	SCM07.03100	Zinc	ICP/MS	SW-846 6020B	PA

Category: SCM08--Organics - SCM Prep. / Screening Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM08.00400	Organics	Synthetic PPT Leachate Procedure	SW-846 1312	PA
Certified	Yes	SCM08.00500	Organics	Waste Dilution	SW-846 3580A	PA
Certified	Yes	SCM08.00700	Semivolatile organics	TCLP, Toxicity Procedure, Shaker	SW-846 1311	PA
Certified	Yes	SCM08.00750	Semivolatile organics	Soxhlet Extraction	SW-846 3540C	PA
Certified	Yes	SCM08.00900	Semivolatile organics	Microwave Extraction	SW-846 3546	PA
Certified	Yes	SCM08.00950	Semivolatile organics	Ultrasonic Extraction	SW-846 3550C	PA
Certified	Yes	SCM08.01350	Semivolatile organics	Cleanup-Florisil	SW-846 3620C	PA
Certified	Yes	SCM08.01400	Semivolatile organics	Cleanup-Silica Gel	SW-846 3630C	PA
Certified	Yes	SCM08.01450	Semivolatile organics	Cleanup-Gel Permeation	SW-846 3640A	PA
Certified	Yes	SCM08.01550	Semivolatile organics	Cleanup-Sulfur Removal	SW-846 3660B	PA
Certified	Yes	SCM08.01600	Semivolatile organics	Cleanup-Sulfuric Acid/KMnO4	SW-846 3665A	PA
Certified	Yes	SCM08.01850	Volatile organics	TCLP, Toxicity Procedure, ZHE	SW-846 1311	PA
Certified	Yes	SCM08.02050	Volatile organics - high conc.	Methanol Extract, Closed System P & T	SW-846 5035A	PA
Certified	Yes	SCM08.02100	Volatile organics - low conc.	Closed System Purge & Trap	SW-846 5035A	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM09--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM09.00150	Extractable Petroleum Hydrocarbons	Extraction, GC, FID	Other NJDEP EPH 10/08, Rev. 3	NJ
Certified	Yes	SCM09.00300	Dibromo-3-chloropropane (1,2-)	Microextraction, GC, ECD	SW-846 8011	PA
Certified	Yes	SCM09.00350	Dibromoethane (1,2-) (EDB)	Microextraction, GC, ECD	SW-846 8011	PA
Certified	Yes	SCM09.00450	Diesel range organic	Extraction, GC, FID	SW-846 8015D	PA
Certified	Yes	SCM09.00500	Gasoline range organic	GC P&T, FID	SW-846 8015D	PA
Certified	Yes	SCM09.01200	Ethyl alcohol	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	SCM09.01350	Isopropyl alcohol	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	SCM09.01400	Methyl alcohol (Methanol)	GC, Direct Injection or P & T, FID	SW-846 8015D	PA
Certified	Yes	SCM09.01950	Ethylene glycol	GC, Direct Injection, FID	SW-846 8015D	PA
Certified	Yes	SCM09.05650	Aldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.05700	Alpha BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.05800	Beta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.05850	Chlordane (alpha) (cis-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.05900	Chlordane (gamma) (trans-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.05950	Chlordane (technical)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06300	DDD (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06350	DDE (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06400	DDT (4,4'-)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06450	Delta BHC	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06500	Dieldrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06550	Endosulfan I	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06600	Endosulfan II	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06650	Endosulfan sulfate	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06700	Endrin	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM09--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM09.06750	Endrin aldehyde	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06800	Endrin ketone	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06900	Heptachlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.06950	Heptachlor epoxide	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.07100	Lindane (gamma BHC)	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.07150	Methoxychlor	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.07300	Mirex	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.07500	Toxaphene	GC, Extraction, ECD or HECD, Capillary	SW-846 8081B	PA
Certified	Yes	SCM09.08700	PCB 1016	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.08750	PCB 1221	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.08800	PCB 1232	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.08850	PCB 1242	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.08900	PCB 1248	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.08950	PCB 1254	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09000	PCB 1260	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09050	PCB 1262	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09100	PCB 1268	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09105	PCB 1016 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09110	PCB 1221 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09115	PCB 1232 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09120	PCB 1242 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09125	PCB 1248 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09130	PCB 1254 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.09135	PCB 1260 (Oil)	GC, Extraction, ECD or HECD, Capillary	SW-846 8082A	PA
Certified	Yes	SCM09.15400	D (2,4-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.15450	Dalapon	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.15500	DB (2,4-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM09--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM09.16000	Dicamba	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16100	Dichlorprop	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16150	Dinoseb	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16250	MCPA	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16300	MCPP	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16400	Pentachlorophenol	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16450	Picloram	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16500	T (2,4,5-)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.16550	TP (2,4,5-) (Silvex)	GC, Extraction, ECD, Capillary	SW-846 8151A	PA
Certified	Yes	SCM09.17400	Acetaldehyde	HPLC, Extraction, Derivatization	SW-846 8315A	PA
Certified	Yes	SCM09.17500	Formaldehyde	HPLC, Extraction, Derivatization	SW-846 8315A	PA
Certified	Yes	SCM09.17750	Aldicarb	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.17800	Aldicarb sulfone	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.17850	Carbaryl	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.17900	Carbofuran (furan)	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.17950	Hydroxy carbofuran (3-)	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.18000	Methiocarb (mesurol)	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.18050	Methomyl (Lannate)	HPLC, Extraction, Derivatization	SW-846 8318A	PA
Certified	Yes	SCM09.18800	Dinitrobenzene (1,3-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.18850	Dinitrotoluene (2,4-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.18900	Dinitrotoluene (2,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.18950	Dinitrotoluene (2-amino-4,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19000	Dinitrotoluene (4-amino-2,6-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19050	HMX	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19100	Nitrobenzene	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19150	Nitroglycerine	HPLC, UV Detector	SW-846 8330B	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM09--Organic Parameters - Chromatography

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM09.19200	Nitrotoluene (2-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19250	Nitrotoluene (3-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19300	Nitrotoluene (4-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19350	PETN	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19400	RDX	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19450	Tetryl	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19500	Trinitrobenzene (1,3,5-)	HPLC, UV Detector	SW-846 8330B	PA
Certified	Yes	SCM09.19550	Trinitrotoluene (2,4,6-)	HPLC, UV Detector	SW-846 8330B	PA

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.00150	HpCDD (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00200	HpCDF (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00250	HpCDF (1,2,3,4,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00300	HxCDD (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00350	HxCDD (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00400	HxCDD (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00450	HxCDF (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00500	HxCDF (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00550	HxCDF (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00600	HxCDF (2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00650	OCDD (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00700	OCDF (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.00750	PeCDD (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00800	PeCDF (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00850	PeCDF (2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00900	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.00950	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	EPA 1613B	PA
Certified	Yes	SCM10.01050	Chlorobiphenyl (2-) (PCB 1)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01100	Chlorobiphenyl (3-) (PCB 2)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01150	Chlorobiphenyl (4-) (PCB 3)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01200	Dichlorobiphenyl (2,2'-) (PCB 4)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01250	Dichlorobiphenyl (2,3-) (PCB 5)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01300	Dichlorobiphenyl (2,3'-) (PCB 6)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01350	Dichlorobiphenyl (2,4-) (PCB 7)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01400	Dichlorobiphenyl (2,4'-) (PCB 8)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01450	Dichlorobiphenyl (2,5-) (PCB 9)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01500	Dichlorobiphenyl (2,6-) (PCB 10)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01550	Dichlorobiphenyl (3,3'-) (PCB 11)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01600	Dichlorobiphenyl (3,4-) (PCB 12)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01650	Dichlorobiphenyl (3,4'-) (PCB 13)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01700	Dichlorobiphenyl (3,5-) (PCB 14)	Extraction, SIM, GC/MS	EPA 1668A	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.01750	Dichlorobiphenyl (4,4'-) (PCB 15)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01800	Trichlorobiphenyl (2,2',3-) (PCB 16)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01850	Trichlorobiphenyl (2,2',4-) (PCB 17)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01900	Trichlorobiphenyl (2,2',5-) (PCB 18)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.01950	Trichlorobiphenyl (2,2',6-) (PCB 19)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02000	Trichlorobiphenyl (2,3,3'-) (PCB 20)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02050	Trichlorobiphenyl (2,3,4-) (PCB 21)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02100	Trichlorobiphenyl (2,3,4'-) (PCB 22)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02150	Trichlorobiphenyl (2,3,5-) (PCB 23)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02200	Trichlorobiphenyl (2,3,6-) (PCB 24)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02250	Trichlorobiphenyl (2,3',4-) (PCB 25)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02300	Trichlorobiphenyl (2,3',5-) (PCB 26)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02350	Trichlorobiphenyl (2,3',6-) (PCB 27)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02400	Trichlorobiphenyl (2,4,4'-) (PCB 28)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02450	Trichlorobiphenyl (2,4,5-) (PCB 29)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02500	Trichlorobiphenyl (2,4,6-) (PCB 30)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02550	Trichlorobiphenyl (2,4',5-) (PCB 31)	Extraction, SIM, GC/MS	EPA 1668A	PA

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**Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994**

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.02600	Trichlorobiphenyl (2,4',6-) (PCB 32)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02650	Trichlorobiphenyl (2,3', 4'-) (PCB 33)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02700	Trichlorobiphenyl (2,3', 5'-) (PCB 34)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02750	Trichlorobiphenyl (3,3',4-) (PCB 35)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02800	Trichlorobiphenyl (3,3',5-) (PCB 36)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02850	Trichlorobiphenyl (3,4,4'-) (PCB 37)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02900	Trichlorobiphenyl (3,4,5-) (PCB 38)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.02950	Trichlorobiphenyl (3,4',5-) (PCB 39)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03000	Tetrachlorobiphenyl (2,2', 3,3'-) (PCB 40)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03050	Tetrachlorobiphenyl (2,2', 3,4-) (PCB 41)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03100	Tetrachlorobiphenyl (2,2', 3,4'-) (PCB 42)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03150	Tetrachlorobiphenyl (2,2', 3,5-) (PCB 43)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03200	Tetrachlorobiphenyl (2,2', 3,5'-) (PCB 44)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03250	Tetrachlorobiphenyl (2,2', 3,6-) (PCB 45)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03300	Tetrachlorobiphenyl (2,2', 3,6'-) (PCB 46)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03350	Tetrachlorobiphenyl (2,2', 4,4'-) (PCB 47)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03400	Tetrachlorobiphenyl (2,2', 4,5-) (PCB 48)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.03450	Tetrachlorobiphenyl (2,2', 4,5'-) (PCB 49)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03500	Tetrachlorobiphenyl (2,2', 4,6'-) (PCB 50)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03550	Tetrachlorobiphenyl (2,2', 4,6'-) (PCB 51)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03600	Tetrachlorobiphenyl (2,2', 5,5'-) (PCB 52)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03650	Tetrachlorobiphenyl (2,2', 5,6'-) (PCB 53)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03700	Tetrachlorobiphenyl (2,2', 6,6'-) (PCB 54)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03750	Tetrachlorobiphenyl (2,3,3',4'-) (PCB 55)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03800	Tetrachlorobiphenyl (2,3,3',4'-) (PCB 56)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03850	Tetrachlorobiphenyl (2,3,3',5'-) (PCB 57)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03900	Tetrachlorobiphenyl (2,3,3',5'-) (PCB 58)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.03950	Tetrachlorobiphenyl (2,3,3',6'-) (PCB 59)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04000	Tetrachlorobiphenyl (2,3,4,4'-) (PCB 60)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04050	Tetrachlorobiphenyl (2,3,4,5'-) (PCB 61)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04100	Tetrachlorobiphenyl (2,3,4,6'-) (PCB 62)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04150	Tetrachlorobiphenyl (2,3,4',5'-) (PCB 63)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04200	Tetrachlorobiphenyl (2,3,4',6'-) (PCB 64)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04250	Tetrachlorobiphenyl (2,3,5,6'-) (PCB 65)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.04300	Tetrachlorobiphenyl (2,3', 4,4'-) (PCB 66)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04350	Tetrachlorobiphenyl (2,3', 4,5-) (PCB 67)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04400	Tetrachlorobiphenyl (2,3', 4,5'-) (PCB 68)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04450	Tetrachlorobiphenyl (2,3', 4,6-) (PCB 69)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04500	Tetrachlorobiphenyl (2,3', 4',5-) (PCB 70)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04550	Tetrachlorobiphenyl (2,3', 4',6-) (PCB 71)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04600	Tetrachlorobiphenyl (2,3', 5,5'-) (PCB 72)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04650	Tetrachlorobiphenyl (2,3', 5',6-) (PCB 73)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04700	Tetrachlorobiphenyl (2,4,4',5-) (PCB 74)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04750	Tetrachlorobiphenyl (2,4,4',6-) (PCB 75)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04800	Tetrachlorobiphenyl (2,3', 4',5'-) (PCB 76)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04850	Tetrachlorobiphenyl (3,3', 4,4'-) (PCB 77)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04900	Tetrachlorobiphenyl (3,3', 4,5-) (PCB 78)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.04950	Tetrachlorobiphenyl (3,3', 4,5'-) (PCB 79)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05000	Tetrachlorobiphenyl (3,3', 5,5'-) (PCB 80)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05050	Tetrachlorobiphenyl (3,4,4',5-) (PCB 81)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05100	Pentachlorobiphenyl (2,2',3,3',4-) (PCB 82)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.05150	Pentachlorobiphenyl (2,2',3,3',5-) (PCB 83)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05200	Pentachlorobiphenyl (2,2',3,3',6-) (PCB 84)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05250	Pentachlorobiphenyl (2,2',3,4,4'-) (PCB 85)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05300	Pentachlorobiphenyl (2,2',3,4,5-) (PCB 86)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05350	Pentachlorobiphenyl (2,2',3,4,5'-) (PCB 87)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05400	Pentachlorobiphenyl (2,2',3,4,6-) (PCB 88)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05450	Pentachlorobiphenyl (2,2',3,4,6'-) (PCB 89)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05500	Pentachlorobiphenyl (2,2',3,4',5-) (PCB 90)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05550	Pentachlorobiphenyl (2,2',3,4',6-) (PCB 91)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05600	Pentachlorobiphenyl (2,2',3,5,5'-) (PCB 92)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05650	Pentachlorobiphenyl (2,2',3,5,6-) (PCB 93)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05700	Pentachlorobiphenyl (2,2',3,5,6'-) (PCB 94)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05750	Pentachlorobiphenyl (2,2',3,5',6-) (PCB 95)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05800	Pentachlorobiphenyl (2,2',3,6,6'-) (PCB 96)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05850	Pentachlorobiphenyl (2,2',3,4',5'-) (PCB 97)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05900	Pentachlorobiphenyl (2,2',3,4',6'-) (PCB 98)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.05950	Pentachlorobiphenyl (2,2',4,4',5-) (PCB 99)	Extraction, SIM, GC/MS	EPA 1668A	PA

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LANCASTER PA 176015994

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.06000	Pentachlorobiphenyl (2,2',4,4',6-) (PCB 100)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06050	Pentachlorobiphenyl (2,2',4,5,5'-) (PCB 101)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06100	Pentachlorobiphenyl (2,2',4,5,6'-) (PCB 102)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06150	Pentachlorobiphenyl (2,2',4,5',6-) (PCB 103)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06200	Pentachlorobiphenyl (2,2',4,6,6'-) (PCB 104)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06250	Pentachlorobiphenyl (2,3,3',4,4'-) (PCB 105)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06300	Pentachlorobiphenyl (2,3,3',4,5-) (PCB 106)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06350	Pentachlorobiphenyl (2,3,3',4',5-) (PCB 107)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06400	Pentachlorobiphenyl (2,3,3',4,5'-) (PCB 108)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06450	Pentachlorobiphenyl (2,3,3',4,6-) (PCB 109)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06500	Pentachlorobiphenyl (2,3,3',4',6-) (PCB 110)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06550	Pentachlorobiphenyl (2,3,3',5,5'-) (PCB 111)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06600	Pentachlorobiphenyl (2,3,3',5,6-) (PCB 112)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06650	Pentachlorobiphenyl (2,3,3',5',6-) (PCB 113)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06700	Pentachlorobiphenyl (2,3,4,4',5-) (PCB 114)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06750	Pentachlorobiphenyl (2,3,4,4',6-) (PCB 115)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06800	Pentachlorobiphenyl (2,3,4,5,6-) (PCB 116)	Extraction, SIM, GC/MS	EPA 1668A	PA

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.06850	Pentachlorobiphenyl (2,3,4',5,6-) (PCB 117)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06900	Pentachlorobiphenyl (2,3',4,4',5-) (PCB 118)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.06950	Pentachlorobiphenyl (2,3',4,4',6-) (PCB 119)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07000	Pentachlorobiphenyl (2,3',4,5,5'-) (PCB 120)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07050	Pentachlorobiphenyl (2,3',4,5',6-) (PCB 121)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07100	Pentachlorobiphenyl (2,3,3',4',5'-) (PCB 122)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07150	Pentachlorobiphenyl (2,3',4,4',5'-) (PCB 123)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07200	Pentachlorobiphenyl (2,3',4',5,5'-) (PCB 124)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07250	Pentachlorobiphenyl (2,3',4',5',6-) (PCB 125)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07300	Pentachlorobiphenyl (3,3',4,4',5-) (PCB 126)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07350	Pentachlorobiphenyl (3,3',4,5,5'-) (PCB 127)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07400	Hexachlorobiphenyl (2,2',3,3',4,4'-) (PCB 128)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07450	Hexachlorobiphenyl (2,2',3,3',4,5-) (PCB 129)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07500	Hexachlorobiphenyl (2,2',3,3',4,5'-) (PCB 130)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07550	Hexachlorobiphenyl (2,2',3,3',4,6-) (PCB 131)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07600	Hexachlorobiphenyl (2,2',3,3',4,6'-) (PCB 132)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07650	Hexachlorobiphenyl (2,2',3,3',5,5'-) (PCB 133)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.07700	Hexachlorobiphenyl (2,2', 3,3',5,6-) (PCB 134)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07750	Hexachlorobiphenyl (2,2', 3,3',5,6'-) (PCB 135)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07800	Hexachlorobiphenyl (2,2', 3,3',6,6'-) (PCB 136)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07850	Hexachlorobiphenyl (2,2', 3,4,4',5-) (PCB 137)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07900	Hexachlorobiphenyl (2,2', 3,4,4',5'-) (PCB 138)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.07950	Hexachlorobiphenyl (2,2', 3,4,4',6-) (PCB 139)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08000	Hexachlorobiphenyl (2,2', 3,4,4',6'-) (PCB 140)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08050	Hexachlorobiphenyl (2,2', 3,4,5,5'-) (PCB 141)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08100	Hexachlorobiphenyl (2,2', 3,4,5,6-) (PCB 142)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08150	Hexachlorobiphenyl (2,2', 3,4,5,6'-) (PCB 143)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08200	Hexachlorobiphenyl (2,2', 3,4,5',6-) (PCB 144)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08250	Hexachlorobiphenyl (2,2', 3,4,6,6'-) (PCB 145)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08300	Hexachlorobiphenyl (2,2', 3,4',5,5'-) (PCB 146)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08350	Hexachlorobiphenyl (2,2', 3,4',5,6-) (PCB 147)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08400	Hexachlorobiphenyl (2,2', 3,4',5,6'-) (PCB 148)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08450	Hexachlorobiphenyl (2,2', 3,4',5',6-) (PCB 149)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08500	Hexachlorobiphenyl (2,2', 3,4',6,6'-) (PCB 150)	Extraction, SIM, GC/MS	EPA 1668A	PA

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LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.08550	Hexachlorobiphenyl (2,2', 3,5,5',6-) (PCB 151)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08600	Hexachlorobiphenyl (2,2', 3,5,6,6'-) (PCB 152)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08650	Hexachlorobiphenyl (2,2', 4,4',5,5'-) (PCB 153)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08700	Hexachlorobiphenyl (2,2', 4,4',5,6'-) (PCB 154)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08750	Hexachlorobiphenyl (2,2', 4,4',6,6'-) (PCB 155)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08800	Hexachlorobiphenyl (2,3,3',4,4',5-) (PCB 156)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08850	Hexachlorobiphenyl (2,3,3',4,4',5'-) (PCB 157)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08900	Hexachlorobiphenyl (2,3,3',4,4',6-) (PCB 158)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.08950	Hexachlorobiphenyl (2,3,3',4,5,5'-) (PCB 159)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09000	Hexachlorobiphenyl (2,3,3',4,5,6-) (PCB 160)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09050	Hexachlorobiphenyl (2,3,3',4,5',6-) (PCB 161)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09100	Hexachlorobiphenyl (2,3,3',4',5,5'-) (PCB 162)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09150	Hexachlorobiphenyl (2,3,3',4',5,6-) (PCB 163)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09200	Hexachlorobiphenyl (2,3,3',4',5',6-) (PCB 164)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09250	Hexachlorobiphenyl (2,3,3',5,5',6-) (PCB 165)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09300	Hexachlorobiphenyl (2,3,4,4',5,6-) (PCB 166)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09350	Hexachlorobiphenyl (2,3', 4,4',5,5'-) (PCB 167)	Extraction, SIM, GC/MS	EPA 1668A	PA

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**Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994**

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.09400	Hexachlorobiphenyl (2,3',4,4',5',6-) (PCB 168)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09450	Hexachlorobiphenyl (3,3',4,4',5,5'-) (PCB 169)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09500	Heptachlorobiphenyl (2,2',3,3',4,4',5-) (PCB 170)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09550	Heptachlorobiphenyl (2,2',3,3',4,4',6-) (PCB 171)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09600	Heptachlorobiphenyl (2,2',3,3',4,5,5'-) (PCB 172)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09650	Heptachlorobiphenyl (2,2',3,3',4,5,6-) (PCB 173)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09700	Heptachlorobiphenyl (2,2',3,3',4,5,6'-) (PCB 174)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09750	Heptachlorobiphenyl (2,2',3,3',4,5',6-) (PCB 175)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09800	Heptachlorobiphenyl (2,2',3,3',4,6,6'-) (PCB 176)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09850	Heptachlorobiphenyl (2,2',3,3',4,5',6'-) (PCB 177)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09900	Heptachlorobiphenyl (2,2',3,3',5,5',6-) (PCB 178)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.09950	Heptachlorobiphenyl (2,2',3,3',5,6,6'-) (PCB 179)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.10000	Heptachlorobiphenyl (2,2',3,4,4',5,5'-) (PCB 180)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10050	Heptachlorobiphenyl (2,2',3,4,4',5,6'-) (PCB 181)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10100	Heptachlorobiphenyl (2,2',3,4,4',5,6'-) (PCB 182)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10150	Heptachlorobiphenyl (2,2',3,4,4',5,6'-) (PCB 183)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10200	Heptachlorobiphenyl (2,2',3,4,4',6,6'-) (PCB 184)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10250	Heptachlorobiphenyl (2,2',3,4,5,5',6'-) (PCB 185)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10300	Heptachlorobiphenyl (2,2',3,4,5,6,6'-) (PCB 186)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10350	Heptachlorobiphenyl (2,2',3,4',5,5',6'-) (PCB 187)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10400	Heptachlorobiphenyl (2,2',3,4',5,6,6'-) (PCB 188)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10450	Heptachlorobiphenyl (2,3,3',4,4',5,5'-) (PCB 189)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10500	Heptachlorobiphenyl (2,3,3',4,4',5,6'-) (PCB 190)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10550	Heptachlorobiphenyl (2,3,3',4,4',5',6'-) (PCB 191)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.10600	Heptachlorobiphenyl (2,3,3',4,5,5',6-) (PCB 192)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10650	Heptachlorobiphenyl (2,3,3',4',5,5',6-) (PCB 193)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10700	Octachlorobiphenyl (2,2',3,3',4,4',5,5'-) (PCB 194)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10750	Octachlorobiphenyl (2,2',3,3',4,4',5,6'-) (PCB 195)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10800	Octachlorobiphenyl (2,2',3,3',4,4',5,6'-) (PCB 196)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10850	Octachlorobiphenyl (2,2',3,3',4,4',6,6'-) (PCB 197)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10900	Octachlorobiphenyl (2,2',3,3',4,5,5',6-) (PCB 198)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.10950	Octachlorobiphenyl (2,2',3,3',4,5,5',6'-) (PCB 199)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11000	Octachlorobiphenyl (2,2',3,3',4,5,6,6'-) (PCB 200)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11050	Octachlorobiphenyl (2,2',3,3',4,5',6,6'-) (PCB 201)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11100	Octachlorobiphenyl (2,2',3,3',5,5',6,6'-) (PCB 202)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11150	Octachlorobiphenyl (2,2',3,4,4',5,5',6-) (PCB 203)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11200	Octachlorobiphenyl (2,2',3,4,4',5,6,6'-) (PCB 204)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11250	Octachlorobiphenyl (2,3,3',4,4',5,5',6-) (PCB 205)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11300	Nonachlorobiphenyl (2,2',3,3',4,4',5,5',6-) (PCB 206)	Extraction, SIM, GC/MS	EPA 1668A	PA

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Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.11350	Nonachlorobiphenyl (2,2', 3,3',4,4',5,6,6'-) (PCB 207)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11400	Nonachlorobiphenyl (2,2', 3,3',4,5,5',6,6'-) (PCB 208)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.11450	Decachlorobiphenyl (PCB 209)	Extraction, SIM, GC/MS	EPA 1668A	PA
Certified	Yes	SCM10.22800	Perchlorate	LC/MS or LC/MS/MS	SW-846 6850	PA
Certified	Yes	SCM10.22900	Acetone	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.22950	Acetonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23000	Acrolein	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23050	Acrylonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23100	Allyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23200	Benzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23250	Benzyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23300	Bromobenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23350	Bromochloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23400	Bromodichloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23500	Bromoform	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23550	Bromomethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23600	Butadiene (2-chloro-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23610	Butanol (1-)	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23650	Butanone (2-) (Methyl ethyl ketone)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23800	Butylbenzene (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23850	Carbon disulfide	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23900	Carbon tetrachloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.23950	Chlorobenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24000	Chloroethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

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Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.24050	Chloroethyl vinyl ether (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24100	Chloroform	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24150	Chloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24200	Chlorotoluene (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24250	Chlorotoluene (4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24330	Cyclohexane	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24350	Cyclohexanone	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24400	Dibromo-3-chloropropane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24450	Dibromochloromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24500	Dibromoethane (1,2-) (EDB)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24550	Dibromomethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24650	Dichloro-2-butene (trans-1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24700	Dichlorobenzene (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24750	Dichlorobenzene (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24800	Dichlorobenzene (1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24850	Dichlorodifluoromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24900	Dichloroethane (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.24950	Dichloroethane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25000	Dichloroethene (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25050	Dichloroethene (cis-1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25100	Dichloroethene (trans-1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25150	Dichloropropane (1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25200	Dichloropropane (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25250	Dichloropropane (2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

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Certified	Yes	SCM10.25300	Dichloropropene (1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25350	Dichloropropene (cis-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25400	Dichloropropene (trans-1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25500	Diisopropyl Ether (DIPE)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25550	Dioxane (1,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25600	Ethanol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25650	Ethyl acetate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25700	Ethyl methacrylate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25750	Ethylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25800	Ethyl-tert-butyl Ether (ETBE)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25850	Hexachlorobutadiene (1,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25930	Hexane (n-)	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.25950	Hexanone (2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26000	Iso-butyl alcohol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26050	Isopropanol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26150	Isopropylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26200	Isopropyltoluene (4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26250	Methacrylonitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26280	Methyl acetate	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26330	Methylcyclohexane	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26350	Methyl iodide	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26400	Methyl methacrylate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26450	Methyl tert-butyl ether	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26500	Methylene chloride (Dichloromethane)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

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Certified	Yes	SCM10.26650	Naphthalene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26730	Nitropropane (2-)	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26800	Pentachloroethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26850	Pentanone (4-methyl-2-) (MIBK)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26900	Propionitrile	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.26950	Propylbenzene (n-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27000	Sec-butylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27050	Styrene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27100	tert-Amylmethyl ether (TAME)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27200	Tert-butyl alcohol	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27250	Tert-butylbenzene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27300	Tetrachloroethane (1,1,1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27350	Tetrachloroethane (1,1,2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27400	Tetrachloroethene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27450	Tetrahydrofuran	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27500	Toluene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27600	Trichloro (1,1,2-) trifluoroethane (1,2,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27650	Trichlorobenzene (1,2,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27700	Trichlorobenzene (1,2,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27750	Trichloroethane (1,1,1-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27800	Trichloroethane (1,1,2-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27850	Trichloroethene	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27900	Trichlorofluoromethane	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.27950	Trichloropropane (1,2,3-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.27980	Trimethylbenzene (1,2,3-)	GC/MS, P & T, or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28000	Trimethylbenzene (1,2,4-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28050	Trimethylbenzene (1,3,5-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28150	Vinyl acetate	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28200	Vinyl chloride	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28250	Xylene (m-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28300	Xylene (o-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28350	Xylene (p-)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28400	Xylenes (total)	GC/MS, P & T or Direct Injection, Capillary	SW-846 8260D	PA
Certified	Yes	SCM10.28900	Acenaphthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.28950	Acenaphthylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29000	Acetophenone	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29050	Acetylaminofluorene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29300	Aminobiphenyl (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29350	Aniline	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29450	Anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29550	Atrazine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29650	Benzaldehyde	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29750	Benzidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29800	Benzo(a)anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29850	Benzo(a)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29900	Benzo(b)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.29950	Benzo(ghi)perylene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30050	Benzo(k)fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30100	Benzoic acid	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30200	Benzyl alcohol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.30350	Biphenyl (1,1'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30400	Bis (2-chloroethoxy) methane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30450	Bis (2-chloroethyl) ether	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30500	Bis(2-chloroisopropyl) ether[2,2'-oxybis(1-chloropropane)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30550	Bis (2-ethylhexyl) phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30600	Bromophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30650	Butylbenzylphthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30700	Caprolactam	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30750	Carbazole	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.30950	Chloroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31000	Chlorobenzilate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31050	Chloronaphthalene (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31100	Chloronaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31150	Chlorophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31200	Chlorophenyl-phenyl ether (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31250	Chrysene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31550	Diallate (cis)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31600	Diallate (trans)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31650	Dibenz(a,h)acridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31700	Dibenz(a,j)acridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.31800	Dibenzo(a,h)anthracene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32000	Dibenzofuran	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32050	Dichlorobenzene (1,2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32100	Dichlorobenzene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.32150	Dichlorobenzene (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32200	Dichlorobenzidine (3,3'-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32250	Dichlorophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32300	Dichlorophenol (2,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32400	Diethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32450	Dimethoate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32500	Dimethyl benzidine (3,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32550	Dimethyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32600	Dimethylaminoazobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32850	Dimethylbenz(a)anthracene (7,12-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32900	Dimethylphenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.32950	Di-n-butyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33000	Dinitrobenzene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33050	Dinitrobenzene (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33100	Dinitrophenol (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33150	Dinitrophenol (2-methyl-4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33200	Dinitrotoluene (2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33250	Dinitrotoluene (2,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33300	Di-n-octyl phthalate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33400	Dioxane (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33450	Diphenylhydrazine / Azobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.33950	Fluoranthene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34000	Fluorene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34150	Hexachlorobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING **Laboratory Number:** PA011 **Activity ID:** NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.34200	Hexachlorobutadiene (1,3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34250	Hexachlorocyclopentadiene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34300	Hexachloroethane	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34400	Hexachloropropene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34500	Indene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34550	Indeno(1,2,3-cd)pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34600	Isodrin	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34650	Isophorone	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34700	Isosafrole (cis-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34750	Isosafrole (trans-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34900	Methanesulfonate (Ethyl-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.34950	Methanesulfonate (Methyl-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35100	Methyl phenol (4-chloro-3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35150	Methylcholanthrene (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35200	Methylnaphthalene (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35250	Methylnaphthalene (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35300	Methylphenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35350	Methylphenol (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35400	Methylphenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35450	Naphthalene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35500	Napthoquinone (1,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35550	Napththylamine (1-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35600	Napththylamine (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35650	Nitroaniline (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
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Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.35700	Nitroaniline (3-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35750	Nitroaniline (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35800	Nitrobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35900	Nitrophenol (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.35950	Nitrophenol (4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36000	N-Nitrosodiethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36050	N-Nitrosodimethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36100	N-Nitroso-di-n-butylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36150	N-Nitroso-di-n-propylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36200	N-Nitrosodiphenylamine / Diphenylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36250	N-Nitrosomethylethylamine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36300	N-Nitrosomorpholine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36350	N-Nitrosopiperidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36400	N-Nitrosopyrrolidine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36500	Parathion	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36550	Parathion methyl	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.36950	Pentachlorobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37050	Pentachloronitrobenzene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37100	Pentachlorophenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37150	Phenacetin	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37200	Phenanthrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37250	Phenol	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37400	Phorate	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37450	Phosphorothioate (diethyl-O-2-pyrazinyl) [Thionazin]	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.37500	Phosphorothioate (O,O,O-triethyl)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37550	Picoline (2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37600	Pronamide	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37650	Pyrene	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37700	Pyridine	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37750	Quinoline	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37800	Quinoline -1-Oxide (4-Nitro)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37900	Safrole	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.37950	Sulfotep	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38150	Tetrachlorobenzene (1,2,4,5-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38200	Tetrachlorophenol (2,3,4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38250	Toluidine (2-) (2-Methylaniline)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38350	Toluidine (5-nitro-2-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38450	Trichlorobenzene (1,2,4-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38500	Trichlorophenol (2,4,5-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38550	Trichlorophenol (2,4,6-)	GC/MS, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38700	Acenaphthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38750	Acenaphthylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38800	Anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38850	Benzo(a)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38900	Benzo(a)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.38950	Benzo(b)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39000	Benzo(ghi)perylene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39050	Benzo(k)fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA

**New Jersey Department of Environment Protection
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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM10--Organic Parameters - Chromatography/MS

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM10.39100	Chrysene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39150	Dibenzo(a,h)anthracene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39250	Dioxane (1,4-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39300	Fluoranthene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39350	Fluorene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39550	Indeno(1,2,3-cd)pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39600	Methylnaphthalene (1-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39650	Methylnaphthalene (2-)	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39700	Naphthalene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39850	Phenanthrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA
Certified	Yes	SCM10.39900	Pyrene	GC/MS/SIM, Extract or Dir Inj, Capillary	SW-846 8270E	PA

Category: SCM11--PCDD / PCDF

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM11.00001	HpCDD (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00050	HpCDF (1,2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00100	HpCDF (1,2,3,4,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00150	HxCDD (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00200	HxCDD (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00250	HxCDD (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00300	HxCDF (1,2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00350	HxCDF (1,2,3,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00400	HxCDF (1,2,3,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA

**New Jersey Department of Environment Protection
Environmental Laboratory Certification Program**



Annual Certified Parameter List and Current Status

Effective as of 8/29/2022 until 6/30/2023

Laboratory Name: EUROFINS LANCASTER LABS ENVIRONMENT TESTING Laboratory Number: PA011 Activity ID: NLC 220003
2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM11--PCDD / PCDF

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM11.00450	HxCDF (2,3,4,6,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00500	OCDD (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00550	OCDF (1,2,3,4,6,7,8,9-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00600	PeCDD (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00650	PeCDF (1,2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00700	PeCDF (2,3,4,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00750	TCDD (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00800	TCDF (2,3,7,8-)	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00850	Total HpCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00900	Total HpCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.00950	Total HxCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.01000	Total HxCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.01050	Total PeCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.01100	Total PeCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.01150	Total TCDD	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA
Certified	Yes	SCM11.01200	Total TCDF	GC/Hi-Res MS, Selected Ion Monitoring	SW-846 8290A	PA

Category: SCM14--SCM - Lab Developed/Non-Std Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM14.02650	Perfluorobutanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.02700	Perfluorobutanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.02750	Perfluorodecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM14--SCM - Lab Developed/Non-Std Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM14.02800	Perfluorododecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.02850	Perfluoroheptanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.02900	Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.02950	Perfluorohexanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03000	Perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03050	Perfluorooctanesulfonic acid (PFOS)	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03100	Perfluorooctanoic acid (PFOA)	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03150	Perfluoropentanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03200	Perfluorotetradecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03250	Perfluorotridecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03300	Perfluoroundecanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03350	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03400	1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03450	1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03500	1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ

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2425 NEW HOLLAND PK
LANCASTER PA 176015994

Category: SCM14--SCM - Lab Developed/Non-Std Methods

Status	Eligible to Report NJ Data	Code	Parameter	Technique	Approved Methods	Primary State
Certified	Yes	SCM14.03550	4,8-dioxa-3H-perfluorononanoic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03600	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03650	Hexafluoropropylene oxide dimer acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03700	N-ethylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03750	N-methylperfluorooctanesulfonamidoacetic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03800	Perfluorodecanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03850	Perfluoropentanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03900	Perfluoroheptanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.03950	Perfluorononanesulfonic acid	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ
Certified	Yes	SCM14.04000	Perfluorooctanesulfonamide	LC MS/MS, Electrospray Ionization, Isotope Dilution	User Defined SOP T-PFAS-WI43626, Ver 1, Eff 2/16/22	NJ


Michele M. Potter, Manager

QAPP
ATTACHMENT B

	Always check on-line for validity.	Level: 	
	Perfluorinated Alkyl Substances (PFASs) in Drinking Water by Method 537.1 Version 1.0	Work Instruction	
		Document number: T-PFAS-WI25232	
		Old Reference:	
Version: 8		Organisation level: 5 Sub-BU	
Approved by: XL3S	Document users:	Responsible:	
Effective Date: 30-DEC-2022	5_EUUSLA_PFAS_Manager, 6_EUUSLA_PFAS_Analyst, 6_EUUSLA_PFAS_Data_Reviewers, 6_EUUSLA_PFAS_Management_Team, 6_EUUSLA_PFAS_Sample_Prep	5_EUUSLA_PFAS_Manager	

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Revision Log
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 Basic Principles
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Revision Log

Revision:	8	Effective date: This version
Section	Justification	Changes
Revision Log	Formatting requirement	Removed revision logs up to the previous version
Header	Enhancement	Updated company name to Eurofins Lancaster Laboratories Environment Testing, LLC
Cross reference	Enhancement	Add G-DC-FRM23907

Revision:	8	Effective date: This version
Section	Justification	Changes
Apparatus and Equipment	Enhancement	Add note about 9mm vial cap testing to #19. added promochrom unit,
Reagents and Standards	Reflect current practice	expiration of 20mM ammonium acetate solution is 1 week. not 48 hours. updated attachments 5-7 to reflect current prep
Procedure	Reflect current practice	Add promochrom option, spike changes for is/ss

Revision:	7	Effective date: 11-JAN-2022
Section	Justification	Changes
Revision Log	Formatting requirement	Removed revision logs up to the previous version
Reagents and standards/referenced attachments	Reflect current procedure	Updated SMT to Reagent in all instances, added option for syringes to prepare standards
Procedure	Enhancement	A.19. update to reconstitute, then add the 10ul of IS

Reference

1. Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LCMSMS), USEPA Method 537.1 Version 1, November 2018.
2. Manual for the Certification of Laboratories Analyzing Drinking Water, EPA-815-R-05-004 (January 2005). (G-EXT-FRM23905)
3. *Chemical Hygiene Plan*, current version.

Cross Reference

Document	Document Title
T-PEST-WI9847	Common Equations Used During Chromatographic Analyses
G-DC-FRM23907	Redacted SOPs
G-EXT-FRM23905	EPA Drinking Water Manual
QA-SOP11892	Determining Method Detection Limits and Limits of Quantitation
Q-EQA-FRM6830	Sampling Collection Instructions

Scope

The method is applicable for the determination of PFAS compounds in drinking water samples. The compounds analyzed in this method are listed below. The most current MDLs and LOQs are listed in the LIMS.

Analyte	Acronym	CAS#
Hexafluoropropylene oxide dimer acid	HFPODA	13252-13-6
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluorodecanoic acid	PFDA	335-76-2
Perfluorododecanoic acid	PFDODA	307-55-1
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluorononanoic acid	PFNA	375-95-1
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorotetradecanoic acid	PFTeDA	376-06-7
Perfluorotridecanoic acid	PFTTrDA	72629-94-8
Perfluoroundecanoic acid	PFUnDA	2058-94-8
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9 *
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS	756426-58-1 *
4,8-dioxa-3H-perfluorononanoic acid	DONA **	919005-14-4 *

*These are the CAS numbers for the free acid form of the analyte.

**DONA is the Acronym for the free acid form of this analyte.

Basic Principles

A 250-mL aqueous sample fortified with surrogates is passed through a solid phase extraction (SPE) cartridge to extract the method analytes and surrogates. The resulting solution is analyzed by LC/MS/MS operated in negative electrospray ionization (ESI) mode for detection and quantification of the analytes. Quantitative analysis is performed using internal standard method.

Interferences

Compounds which have similar structures to the compounds of interest, and similar molecular weights would potentially interfere. Method interferences may be caused by coeluting peaks, contaminants in solvents, reagents (including reagent water), sample bottles and caps, and other sample processing hardware that lead to discrete artifacts and/or elevated baselines in the chromatograms. The analytes in this method can also be found in many common laboratory supplies and equipment, such as PTFE

(polytetrafluoroethylene) products, LC solvent lines, methanol, aluminum foil, etc. A laboratory reagent water blank is performed with each batch of samples to demonstrate that the extraction system is free of contaminants.

Precaution to minimize method interference:

1. Proprietary Content.
2. Proprietary Content.
3. PFAS standards, extracts and samples should not come in contact with any glass containers as these analytes can potentially adsorb to glass surfaces. PFAS analytes and internal standards commercially purchased in glass ampules are acceptable; however, all subsequent transfers or dilutions performed by the analyst must be stored in polypropylene containers.
4. All equipment used for sample extraction and analysis must be meticulously cleaned. The equipment must not be covered with aluminum foil because perfluorinated carboxylic acids can be potentially transferred from the aluminum foil to the glassware.

Safety Precautions and Waste Handling

All laboratory waste is accumulated, managed, and disposed of in accordance with all federal, state and local laws and regulations.

See *Chemical Hygiene Plan* for general information regarding employee safety, waste management, and pollution prevention.

The toxicity or carcinogenicity of each reagent used in this method has not been precisely defined. Health advisories have been issued for both PFOA and PFOS. Each chemical must be treated as a potential health hazard, and exposure to these chemicals must be minimized. Exposure to these chemicals must be reduced to the lowest possible level by whatever means available, such as fume hoods, lab coats, safety glasses, and gloves. Gloves, lab coats, and safety glasses must be worn when preparing standards and handling samples. Avoid inhaling solvents and chemicals and getting them on the skin. Wear gloves when handling neat materials. When working with acids and bases, take care not to come in contact, and to wipe any spills. Always add acid to water when preparing reagents containing concentrated acids. Gloves and safety glasses must be worn at all times.

All solvent waste and extracts are collected in approved solvent waste containers in the laboratory and subsequently emptied by personnel trained in hazardous waste disposal into the lab-wide disposal facility. All samples, standards, and extracts must be collected for incineration. HPLC vials are disposed of in the lab container for waste vials, and subsequently lab packed. Any solid waste material (disposable pipettes and broken glassware, etc.) may be disposed of in the normal solid waste collection containers.

Personnel Training and Qualifications

All personnel performing this procedure must have documentation of reading, understanding, and agreeing to follow the current version of this SOP and an annual documented Demonstration of Capability (DOC).

Each chemist performing the extraction must work with an experienced employee for a period of time until they can independently perform the extraction. Also, several batches of sample extractions must be performed under the direct observation of another experienced chemist to assure the trainee is capable of independent preparation. Proficiency is measured through a documented Initial Demonstration of Capability (IDOC).

Each LC/MS/MS analyst must work with an experienced employee for a period of time until they can independently calibrate the LC/MS/MS, review and process data, and perform maintenance procedures. Proficiency is measured through a documented Initial Demonstration of Capability (IDOC).

The IDOC is performed to meet the requirements listed in sections 9.2.3 and 9.2.4 of the method (four LFBs spiked near the midrange of the calibration, 70-130% mean recovery, and %RSD <20%). In addition, the IDOC includes the preparation (Extraction chemist) and analysis (LC/MS/MS analyst) of a 7 replicate MDL study.

The DOC consist of four laboratory control samples (or alternatively, one blind sample) that is carried through all steps of the extraction and meets the defined acceptance criteria. The criteria include the calculation of mean accuracy and standard deviation.

Sample Collection, Preservation, and Handling

A. Sample Collection

1. The sample handler must wash their hands before sampling and wear nitrile gloves while filling and sealing the sample bottles.

NOTE: PFAS contamination during sampling can occur from a number of common sources, such as food packaging and certain foods and beverages. Proper hand washing and wearing nitrile gloves will aid in minimizing this type of accidental contamination of the samples.

2. Collect samples in 250-mL polyethylene bottles fitted with a polypropylene screw cap containing 1.25 grams of Trizma, resulting in a Trizma concentration of 5.0 g/L. Samples do not need to be collected headspace-free. Keep the sample sealed from time of collection until extraction.

3. A field reagent blank must be collected with each sample set. See *Q-EQA-FRM6830* for sampling instructions.

B. Sample Storage and Shipment

1. Samples must be chilled during shipment and must not exceed 10°C during the first 48 hours after collection. Sample temperature must be confirmed to be at or below 10°C when the samples are received at the laboratory. If samples are received with a temperature above 10°C, the samples are rejected and the client must recollect and resubmit samples to the laboratory.

2. When samples are received, a pH check is performed. The pH must be 7 ± 0.5 . This is performed by the sample storage group prior to bottles being available to the lab for analysis. If samples are received with a pH outside of the 7 ± 0.5 pH range, the samples are rejected and the client must recollect and resubmit samples to the laboratory.

3. Samples stored in the lab must be held at or below 6°C until extraction, but must not be frozen.

4. Water samples must be extracted within 14 days. Extracts must be analyzed within 28 days after extraction. Store extracts at room temperature.

Apparatus and Equipment

1. Centrifuge tubes – 15-mL conical polypropylene with polypropylene screw caps; Fisher Scientific, Cat. No. 05-539-5 or equivalent
2. 10-mL polypropylene volumetric flask, Class A – Fisher Scientific, Cat. No. S02288, or equivalent.
3. Polypropylene bottles for reagent storage: 1000-mL, Fisher; Cat. No. 02896F.
4. Analytical Balance – Capable of weighing to 0.0001 g

5. Top-Loading Balance – Capable of weighing to 0.01 g
6. Solid phase extraction (SPE) cartridge, styrene divinylbenzene polymetric sorbent - Agilent Mega Bond Elut Plexa, 6 cc cartridge, 500 mg Sorbent per cartridge, Cat. No. 12259506, or equivalent.
7. SPE vacuum extraction manifold – “Resprep” 24-port manifold; Restek Corp catalogue # 26080, or equivalent.
8. Polypropylene SPE delivery needles – Agilent; Cat. No. 12234511.
9. Polypropylene SPE Reservoirs, 25-mL – Sigma Aldrich Cat. No. 24258-U.
10. Centrifuge – “Q-Sep 3000”; Restek Corp. Cat. No. 26230, or equivalent, capable of 3000 rpm.
11. Disposable polyethylene pipette – Fisher Scientific, Cat. No. S30467-1 or equivalent
12. Auto Pipettes – Eppendorf; capable of accurately dispensing 10µl – 1000µl.
13. Polypropylene pipette tips: 0-200µl. Fisher; Cat. No. 02-681-135
14. Polypropylene pipette tips: 101-1000µl. Fisher, Cat. No. 02-707-508
15. Pipettes – Disposable transfer. Fisher Scientific, Cat. No. 13-711-7M
16. Vortex mixer, variable speed, Fisher Scientific or equivalent
17. N-Evap sample extract concentrator with N₂ supply and water bath for temperature control.
18. Reagent Water Purification System: Capable of producing ultrapure “Type 1/Milli-Q”-grade water from in-house deionized water system. Millipore SAS; Cat. No. FTPF08831.
19. Thermo Target PP Polyspring inserts, catalog number C4010-630P
20. Waters 9mm vial kit pack, catalog number 186005660CV, or equivalent (Note: Caps are tested to show they are PFAS free by soaking in Mehtanol and analyzing for PFAS.)
21. Centrifuge tubes – 50-mL conical polypropylene with polypropylene screw caps; Fisher Scientific, Cat. No. 06-443-21 or equivalent
22. Polypropylene bottles for standard storage - 4 mL; Fisher Scientific, Cat. No. 2006-9125
23. 250-mL HDPE bottle with 1.25g Trizma added, Scientific Specialties Catalog # 334008-1.25Triz.
24. Promochrom sample extraction system
25. Bottle; HDPE; natural; wide mouth; QC; 125 ml; 38-415; 48 EA, Environmental sampling supply inc. cat#0125-1060-QC
26. AB Sciex Triple Quad 4500 Turbo V Ion Source or AB Sciex API 4000 Turbo V Ion Source LC/MS/MS or equivalent
 ExionLC Controller
 ExionLC AC Pump
 ExionLC AC Autosampler
 Exion AC Column Oven
 Data system – Analyst 1.6.3
27. HPLC columns

- a. Proprietary Content
- b. Proprietary Content

Reagents and Standards

All solvents, acids, and bases are stored in glass bottles in flammable proof cabinets or pressure resistant steel drums. Solvents, acids, and bases are stored at ambient temperature for up to 1 year. All non-solvents are stored according to manufacturer's storage conditions.

A. Reagents

1. Methanol – Honeywell, Chromasolv LC-MS or equivalent.
2. Milli-Q Water
3. Ammonium acetate – Sigma Aldrich or equivalent.
4. 20 mM ammonium acetate solution – Weigh 1.54 ± 0.01 g ammonium acetate into a 1-L bottle. Add 1 L Milli-Q water and mix well. Ammonium acetate is volatile and this solution must be replaced weekly or more frequently if degradation is observed. This solution may be prepared in larger or smaller volumes as long as final concentrations are equivalent. Store at room temperature.
5. 20 mM ammonium acetate solution in 0.5% Milli-Q water/methanol – Weigh 1.54 ± 0.01 g ammonium acetate into a 2-L glass mobile phase bottle. Add 5 mL of Milli-Q water to dissolve the Ammonium Acetate. Bring up to 1 L with methanol and mix well. Store at room temperature for up to one week or until degradation is observed. Different volumes can be prepared as long as final concentrations are equivalent.
6. Trizma Pre-set crystals - Sigma catalog # T-7193 or equivalent, reagent grade or equivalent.

B. Standards Preparation

Standards are prepared using calibrated syringes or pipettes, polypropylene microcentrifuge tubes, polypropylene bottles, and 10 ml Class A PP volumetric flasks to create solutions at desired concentrations. The concentrated solution is injected below the surface of the diluting solvent. After preparation is completed, standards should be vortexed to ensure complete mixing. Measurement of volumes less than 5 μ l should be avoided in routine production operations.

Calibration standards and intermediate solutions are stored at room temperature in labeled 4-mL polypropylene bottles or 15-mL polypropylene centrifuge tubes with screw caps.

Expiration dates are managed through TALS Reagent. All stocks transferred from sealed glass ampules to screw-capped vials are given expiration dates of 1 year from the date opened or the expiration date provided by the vendor, whichever occurs sooner. All intermediate solutions are given an expiration date of 6 months from the preparation date, or the expiration date from the ampule provided by the vendor, whichever occurs sooner. Working calibration standards are given an expiration date of 1 month, or the expiration date of the solutions used to prepare the working solution, whichever occurs sooner. Standards are prepared prior to the expiration date if degradation is observed.

Working native and labeled (surrogate and internal standard) compound spiking solutions are given an expiration date of 2 months, or the expiration date of the solutions used to prepare the working solution, whichever occurs sooner. The solutions are stored in labeled polypropylene (PP) screw-top vials or PP centrifuge tubes at room temperature. When these solutions are prepared they must be tested prior to use in the PFAS extraction lab and verified monthly until

they are consumed by operations or expire. Records of the standard verification are stored in TALS Reagent. Prior to use, the working spiking solution must meet recovery windows of 85-115% for all compounds that will be analyzed using that solution. Should a standard fail to meet these criteria, it should be reanalyzed in duplicate on a second LC/MS/MS system. If the reanalysis meets acceptance criteria, the solution can be used. If the reanalysis does not meet acceptance criteria, the solution must be discarded, re-prepared, and analyzed.

1. Standard Solutions and Ordering information

Attachment 4 describes the required standard solutions and associated ordering information. The primary/preferred standard vendor is Wellington Laboratories, Inc. Ontario, Canada. Listed catalog numbers are taken from Wellington product lists. Equivalent standards may be substituted, if the listed standards are unavailable. The solution concentration listed is as presented on the certificate of analysis and includes adjustment for purity and the salt form of the compound used.

NOTE: The concentrations referenced for the sulfonate salts, (for example PFBS, PFHxS and PFOS) have already been corrected to the acid form by the standards supplier as noted in the example Certificate of Analysis (CofA). See Attachment 8.

If the compound purity is assayed to be 96% or greater, weight can be used without correction to calculate concentrations. Ampules are stored in the refrigerator.

2. TALS Reagent database:

Log purchased standards into TALS Reagent. Select the solution category SOURCE for purchased mixes and/or single-compound ampules. TALS Reagent system will assign formatted names to the purchased standard solutions. The automatically-generated name can be overwritten with a manually created name if desired. Use labels printed through the TALS Reagent to identify and track standard solutions after transfer from original ampule to storage vial. The CofA for the ampulated stock standard is attached in TALS Reagent for reference.

3. Preparation of intermediate-concentration solution mixes is necessary to prepare the working initial calibration standards. Attachment 5 describes the Intermediate solutions required for preparation of working calibration standards, ICV, and linear branched standard solutions. Enter the appropriate information into TALS Reagent as the intermediate solutions are prepared.
4. All working calibration solutions are prepared in 96% methanol/water and are stable for at least 1 month if stored at room temperature. The working calibration standards are prepared using ampulated stocks(see Attachment 4), as well as the intermediate solutions (see Attachment 5) The preparation of the working calibration standards are described in Attachment 6.

Calibration standards consist of five levels of increasing native-compound concentration and constant concentrations of mass-labeled compounds functioning as internal standards. Also included in the initial calibration are: a Method Detection Limit (MDL)-level standard, a linear and branched standard for T-PFOA, and an Initial Calibration Verification (ICV) standard. The ICV should be from an alternate vendor ("2nd source"), if possible, other than the primary source. For PFAS analysis, it is common to use mixes from the same vendor (Wellington Labs), but from a separate/different manufactured lot number.

The following represents an example of standard naming/codes generated from TALS Reagent for an initial 5-point (level) PFAS calibration, with MDL, linear and branched standard for T-PFOA, and ICV standards:

537_DW-B_MDL_00051 (MDL)
537_DW-B_CAL1_00051 (CAL1)
537_DW-B_CAL2_00051 (CAL2)
537_DW-B_CAL3_00051 (CAL3)
537_DW-B_CAL4_00051 (CAL4)
537_DW-B_CAL5_00051 (CAL5)
537_DW-B_ICV_00051 (ICV)

5. Preparation of working native spike solutions (for spiked batch QC; LLFB/LFB/LFBD; LFSM/LFSMD), mass-labeled surrogate spike solution, and internal spike solution are described in Attachment 7.

Preparation of Glassware

Not applicable

Calibration

See Procedure section B.4 through B.5.

Procedure

A. Manual Sample Extraction

1. Weigh full sample container on a calibrated top loading balance and record the first reading in the automated prep entry system.
2. Use a 250ml HDPE bottle with 1.25g Trizma added (see Apparatus and Equipment 23.) for the extraction blank and the LFB. Fill each bottle with 250 +/- 0.4 grams of Milli-Q water.
3. Assemble the SPE extraction apparatus and attach the SPE cartridges. Label each cartridge with the appropriate sample number.
4. Condition each SPE cartridge with 15 mL methanol followed by 18 mL of Milli-Q water. Discard the eluent. Add 4-5 mL of reagent water to each cartridge. Do not let the cartridge go dry at any point during the conditioning process.
5. Vortex all spike solutions prior to use.
6. Spike QC samples (LFB/LFBD/LFSM/LFSMD) with 40 µl of native spike. Rotate the native spike for each batch prepped between the mid-level(537_SW-B_MID_), and high-level(537_SW-B_High_) spikes. Spike QC and all samples with 1ml of surrogate spike(537_DW-B_SURL_). Vortex to thoroughly mix.
7. Spike LLFB with 20 µl of Low-Level Native Spike(537_DW-B_LOW_) and 1 mL of surrogate spike(537_DW-B_SURL_). Vortex to thoroughly mix.
8. Attach a 25-mL SPE adaptor to each cartridge. Load the spiked samples/QC to the respective cartridges. Allow full volume to pass the each cartridge by gravity, if possible. Apply light vacuum if necessary. The flow rate should be approximately 10-15 mL per minute.
9. After the sample has fully eluted, rinse the sample bottle with 7.5 mL of Milli-Q water and add to the cartridge. Rinse the sample bottle with a second 7.5 mL of Milli-Q water and add to the cartridge.
10. After full volume and water rinses have passed through the cartridges, discard all waste from the reservoir.
11. Wipe each SPE needle with a Kim-wipe/methanol.
12. Dry cartridges with vacuum. No more than 15" Hg for approximately five minutes. Inspect the cartridge to ensure it is dry. Use of a visual standard is done to ensure that the cartridge has reached dryness.

13. Place labeled 15-mL polypropylene centrifuge collection tubes under each respective SPE cartridge.
14. Add 4 mL of methanol to each empty sample bottles and shake well.
15. Transfer the methanol from the bottles to the SPE reservoir.
16. Elute each cartridge with the 4 mL of methanol. Collect the 4 mL into the polypropylene centrifuge tubes. Repeat steps 13 and 14 a second time.
17. Repeat steps 14 - 16 a second time, collecting into the same polypropylene centrifuge tubes.
18. Concentrate on the N-Evap at no more than 40°C to dryness.
19. Add 1 mL of internal standard spike(537_DW-B_ISL_) to each extract. Extracts should be stored at room temperature in polypropylene centrifuge tubes until analysis.
20. Place each empty sample bottle on the top-loading balance and weigh. Record the second reading in the automated prep entry system. The prep entry system will calculate the sample weight. Record the calculated weight as the sample volume on the batchlog.

B. Automated Sample Extraction using Promochrom

This procedure can be used in place of the manual extraction described above.

1. Weigh full sample container on a calibrated top loading balance and record the first reading in the automated prep entry system.
2. Use a 250ml HDPE bottle with 1.25g Trizma added(see Apparatus and Equipment 23.) for the extraction blank and the LFB. Fill each bottle with 250 +/- 0.4 grams of Milli-Q water.
3. Fill the bottle on top of the promochrom with methanol and water, select clean sys from drop down menu, press the green check mark then select start. A window showing how much of each solvent that is needed will pop up, select ok.
4. Vortex all spike solutions prior to use.
5. Spike QC samples (LFB/LFBD/LFSM/LFSMD) with 40 µl of native spike. Rotate the native spike for each batch prepped between the mid-level(537_SW-B_MID_), and high-level(537_SW-B_High_) spikes. Spike QC and all samples with 1ml of surrogate spike(537_DW-B_SURL_). Vortex to thoroughly mix.
6. Spike LLFB with 20 µl of Low-Level Native Spike(537_DW-B_LOW_) and 1 mL of surrogate spike(537_DW-B_SURL_). Vortex to thoroughly mix.
7. Remove clean cartridges and attach the cartridges that will be used when running the samples. Disconnect the clean bottles then attach the sample bottle being sure to twist the bottle and not the cap, then place sample bottle upside down in corresponding numbered location on shaker. Poke two holes into the lip of each bottle. Load labeled centrifuge tubes in the moving tray beneath the cartridges.
8. Select EPA 537 from drop down menu, press the green check mark, and then press start. Select okay on pop-up menu after assuring there is enough of the solvents needed.
9. Once the cycle is complete remove centrifuge tubes and discard the used cartridges and bottles. Reattach clean bottles and cartridges, select clean sys from menu, select start (this must be done between each batch and the beginning and end of the day).
10. Concentrate on the N-Evap at no more than 40°C to dryness.
11. Add 1 mL of internal standard spike(537_DW-B_ISL_) to each extract. Extracts should be stored at room temperature in polypropylene centrifuge tubes until analysis.

12. Place each empty sample bottle on the top-loading balance and weigh. Record the second reading in the automated prep entry system. The prep entry system will calculate the sample weight. Record the calculated weight as the sample volume on the batchlog.

C. LC/MS/MS Analysis

Tuning and calibration for the LC/MS/MS: Refer to the instrument manufacturer's instructions for tuning and conditions. These values are stored in the tune file for future reference, and may not need to be changed unless loss of response is noted.

1. Chromatographic conditions

Below are the recommended chromatographic conditions for the reversed-phase separation. Modifications to these conditions can be made at the discretion of the analyst to improve resolution or the chromatographic process. Proprietary Content

2. Example acquisition method: See *Proprietary Content*

3. Load sample vials containing standards, quality control samples, and sample extracts into autosampler tray. Allow the instrument adequate time to equilibrate to ensure the mass spec

and LC have reached operating conditions (approximately 5 minutes) before the first injection. Analyze several solvent blanks to clean the instrument prior to sample acquisition. An example sequence would be:

Initial Calibration Sequence:

1. Solvent
2. Solvent
3. Solvent
4. Solvent
5. CAL1
6. CAL2
7. CAL3
8. CAL4
9. CAL5
10. Solvent
11. MDL
12. ICV
13. L+B CAL3
14. CCC-CAL3

If the initial calibration passes, schedule a solvent blank followed by batch QC and samples.

Sample Sequence:

1. Solvent
2. Solvent
3. Solvent
4. Solvent
5. CCC1-CAL1
6. Method Blank (LRB)
7. LFB
8. LFB
9. LLFB
10. LFSM
11. LFSMD
12. Sample
13. Sample
14. Sample
15. Sample
16. Sample
17. CCC2-CAL3

CCC's are acquired after every 10 samples. See C.6.a for more information.

Solvent = 96% methanol in water

If the system is acquiring data overnight, schedule four solvent blanks at the end of the sequence prior to the system going into standby mode

4. Initial Calibration

- a. Inject a minimum of 5 calibration standards. The low concentration standard must be at or near the MRL (See *Attachment 3*). The curve must be forced through zero and may be concentration weighted 1/x.
- b. Back calculated concentrations for each analyte in each calibration level must be within 70% to 130% of its true value with the exception of the low calibration standard, CAL 1, where the back calculated concentration must be within 50% to 150% of its true value.

- c. The relative percent difference (RPD) between the high and low areas for each internal standard must be <20%.
- d. Analyze a Linear and Branched-standard that contains linear and branch chained isomers of PFOA. The analysis of this standard is used to demonstrate where the branch chained isomers elute and not included in the calibration curve. This will assist the chemist in identifying and properly integrating these compounds in samples.
- e. Peak asymmetry factor: Must be calculated with each ICAL. The factor for the first two eluting peaks in the mid-level CAL standard must fall in the range of 0.8-1.5.
- f. See *Attachment 2* for relationship between injection standard, extraction standard, and native compound.
- g. After the initial calibration, inject a solvent blank to demonstrate that there is no carryover.

5. Calibration confirmation by second source standards

Once the calibration curve has been established, analyze second source mid-level standard as QCS to confirm the validity of the calibration curve/standard. A different lot of the standard or standard from a second vendor could be used. The calculated amount for each analyte must be $\pm 30\%$ of the true value

6. Continuing calibration check

- a. The continuing accuracy must be verified by analysis of a continuing calibration Check (CCC) standard up to every ten samples and at the beginning and the end of each group of analyses. The opening CCC of the sequence must be at or below the MRL (See *Attachment 3*) in order to verify instrument sensitivity prior to sample analysis. All subsequent CCCs should alternate between the medium and high concentration CAL standards.
- b. The absolute areas of the quantitation ions for the internal standards (IS) must be within 70%-140% of the areas measured in the most recent CCC and within $\pm 50\%$ of the average areas measured during the most recent ICAL.
- c. The calculated amount for each target analyte and surrogate must be within $\pm 30\%$ of the true value for all CCCs except the low concentration CCC. For the low concentration CCC, each target compound must be within $\pm 50\%$ of the true value and each surrogate percent recovery must be within $\pm 30\%$ of the true value.
- d. Samples that are not bracketed by acceptable CCC runs must be reanalyzed. If the CCC recoveries are running high indicating increased sensitivity, and no detections of target analytes are observed, the data may be reported with a comment.

7. Sample analysis

- a. Usually the LFB and matrix spike samples are analyzed at the beginning of the analytical set, samples are analyzed next. Bracket each set of up to ten samples with a continuing calibration Check (CCC) standard.
- b. Process each sample and review the chromatogram closely. Evaluate all integrations, baseline anomalies, and retention time differences.
- c. All internal standard recoveries in QC and field samples must be within 70%-140% of the response in the most recent CCC and within $\pm 50\%$ difference of the average response from the most recent ICAL. If the internal standard areas do not meet these criteria, a second aliquot of the sample may be analyzed. If the analysis of the second aliquot is acceptable, report those results. If the analysis of the second aliquot still yields internal standard responses that do not meet criteria, the sample may need reextracted if it is still within holding time or flagged with a comment on the analysis report.

- d. All surrogate recoveries in QC and field samples must be within the range of 70%-130%. If the recoveries fall outside this range the sample must be re-extracted.
- e. Evaluate laboratory reagent blank (LRB). No target analytes can be detected above the MDL, which is less than 1/3 the MRL. If there are positive detections in the LRB but no detections in the associated samples the data may be reported. If there are positive detections in the LRB above the MDL, and detections of the same target analytes in the associated samples, the samples must be re-extracted.
- f. Evaluate the laboratory fortified blank (LFB). All native recoveries should be within 70%-130% except the low fortified LFB. The acceptance criteria for the low fortified LFB is 50%-150%. If recoveries fall outside these acceptance ranges for the LFB (native recoveries), re-inject all samples with the LFB. If issue persists, further evaluation of the system and possible re-extraction may be required. If re-extraction is required, all associated samples must also be re-extracted.
- g. Evaluate the laboratory fortified sample matrix and matrix duplicate (LFSM/LFSMD). All native recoveries should be within 70%-130%. The RPD's should be less than or equal to 30%.
- h. If any targets are detected above the reporting limit in a sample, evaluate the field reagent blank (FRB). If any targets found in the field samples are also found in the FRB at concentrations > 1/3 the MRL, all field samples associated with the FRB must be recollected and reanalyzed. If a FRB is not submitted with a field sample, a comment will be added to the analysis report. The FRB must contain the same lot number of Trizma as the associated sample set.

Calculations

1. Internal standards

Calculating the %D

%D for CAL standards = $((\text{IS Area} - \text{AVG Area from the Calibration}) / \text{AVG Area from the Calibration}) * 100$

For samples:

%Recovery IS = $((\text{IS Area} - \text{IS area CCC}) / \text{IS Area CCC}) + 1) * 100$

Where CCC = most recent/opening bracket CCC

2. Surrogate Standards; Target Compounds

Combo factor = Dilution factor * Prep factor * (Sample Volume/Sample Weight)

Note: Prep factor = 1

SUR Actual Concentration = Expected Concentration (for a sample with a final volume of 1 mL) * Combo factor

Calculated Concentration = (Area Ratio/Slope of the curve) * IS Conc * DF

For surrogates: Slope of the curve = Average area from the calibration standards

IS Conc varies depending on the associated IS: 13C2-PFOA = 10 ng/mL, 13C4-PFOS = 28.68 ng/mL, d3-NMeFOSAA = 40 ng/mL.

Sample Result = Calculated Concentration * Combo factor

% REC for surrogates = $\left[\frac{((\text{Sample Result}-\text{SUR Actual Concentration})/\text{SUR Actual Concentration})+1}{2}\right] \times 100$

See *T-PEST-WI9847* for details on all calculations/equations used to evaluate the initial and continuing calibration and QC samples.

Statistical Information/Method Performance

The LFB should contain all compounds of interest. LFB, MS/Ds, surrogate standard recoveries, and RPD are compared to the limits stored in the LIMS. These limits are defined in the method. Historical data for MS/Ds, LFD/Ds, measurement of uncertainty, is reviewed at least annually. Reporting limits including method detection limits (MDLs) and limits of quantitation (LOQs) are set according to EPA method requirements and are evaluated annually. Refer to *QA-SOP11892* for specific guidelines and procedures. Updates to the LIMS are made as needed by the QA Department and only as directed by the supervisor.

The initial demonstration of capability for this method has been carried out as listed in Section 9.2 of the reference method. See below for items not addressed elsewhere in the SOP.

1. Initial Demonstration of Low System Background - Performed any time a new lot of SPE cartridges, solvents, centrifuge tubes, disposable pipets and autosampler vials are used.
 - a. No peaks are present within the retention time window of any analyte that would prevent the determination of that analyte. If any peaks are present, determine the source of the contamination and eliminate the interference before sample analysis.
 - b. Background from method analytes must be below 1/3 of the MRL.
2. Initial Demonstration of Peak Asymmetry factor- Performed during the IDC and every time a new calibration curve is generated.
 - a. Calculate the peak asymmetry factors for the first two eluting peaks in a mid-level CAL standard using the following equation:

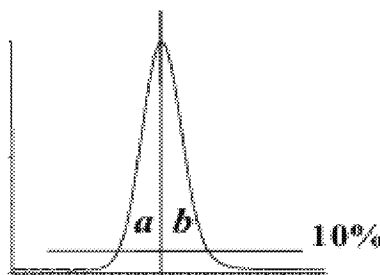
$$A_s = \frac{b}{a}$$

where:

A_s = peak asymmetry factor

B = width of the back half of the peak measured (at 10% peak height) from the trailing edge of the peak to a line dropped perpendicularly from the peak apex

a = the width of the front half of the peak measured (at 10% peak height) from the leading edge of the peak to a line dropped perpendicularly from the apex.



- b. Peak asymmetry factors must fall in the range of 0.8 to 1.5
 - c. If the criteria are not met, corrective action must be taken prior to sample analysis.

3. Minimum Reporting Level (MRL) confirmation

- a. Fortify, extract, and analyze seven replicate LFBs at the proposed MRL concentration.
- b. Calculate the mean measured concentration and standard deviation of the replicates.
- c. Determine the Half Range for the prediction interval of results (HR_{PIR}) using the equation below:

$$HR_{PIR} = 3.963s$$

where

s = the standard deviation
3.963 = a constant value for seven replicates.

- d. The Upper PIR limit must be less than or equal to 150% recovery using the equation below:

$$\frac{\text{Mean} + HR_{PIR}}{\text{Fortified Concentration}} \times 100\% \leq 150\%$$

- e. The Lower PIR Limit must be greater than or equal to 50% recovery using the equation below:

$$\frac{\text{Mean} - HR_{PIR}}{\text{Fortified Concentration}} \times 100\% \geq 50\%$$

- f. The MRL is validated if both the Upper and Lower PIR limits meet the criteria
- g. If the criteria is not met, the MRL is too low and must be determined again at a higher concentration.

Quality Assurance/Quality Control

For each batch of samples extracted, an LRB, an LLFB (Milli-Q water spiked with all compounds to be determined carried through the entire procedure spiked at the MRL), an LFB (Milli-Q water spiked with all compounds to be determined carried through the entire procedure), and an LFSM/LFSMD must be extracted. If there is limited sample that prevents the preparation of an LFSM/LFSMD then an LFB may be prepared instead. However, the final report must then include a comment indicating the method specified LFSM/LFSMD was not analyzed due to insufficient sample submission. A batch is defined as the samples to be extracted on any given day, but not to exceed 20 field samples. If more than 20 samples are prepared in a day, an additional batch must be prepared. A field reagent blank (FRB) must be analyzed for each set of client samples submitted. This is to ensure no PFAS compounds are being introduced in the field. If one is not submitted, a comment will be added to the analysis report.

Note: If residual chlorine is present in regulated drinking water samples from PA, the sample is rejected.

If any client, state, or agency has more stringent QC or batching requirements, these must be followed instead.

Attachment:

Attachment 1 – Proprietary Content

Attachment 2 - IS-SS-Target Compound Associations (.docx)

Attachment 3 - MRLs (.doc)
Attachment 4 - Ampulated Standards (.doc)
Attachment 5 - Intermediate Solutions (.doc)
Attachment 6 - Working Calibration Standards (.doc)
Attachment 7 - Spiking Solutions (.doc)
Attachment 8 - Example CofA (.pdf)

11892 Determining Method Detection Limits and Limits of Quantitation

23905 EPA Drinking Water Manual

23907 Redacted SOPs

6830 Sampling Collection Instructions

9847 Common Equations Used During Chromatographic Analyses

Attachment: Attachment 1 – Proprietary Content

Attachment: Attachment 2 - IS-SS-Target Compound Associations (docx)

Attachment: Attachment 3 - MRLs (doc)

Attachment: Attachment 4 - Ampulated Standards (doc)

Attachment: Attachment 5 - Intermediate Solutions (doc)

Attachment: Attachment 6 - Working Calibration Standards (doc)

Attachment: Attachment 7 - Spiking Solutions (doc)

Attachment: Attachment 8 - Example CofA (pdf)

End of document

Version history

Version	Approval	Revision information	
6	16.NOV.2020		
7	28.DEC.2021		
8	30.DEC.2022		

Attachment 2

Internal Standards
13C2-PFOA
13C4-PFOS
d3-NMeFOSAA

Surrogates	Internal Standard
13C2-PFHxA	13C2-PFOA
13C2-PFDA	13C2-PFOA
13d5-NEtFOSAA	d3-NMeFOSAA
13C3-HFPODA	13C2-PFOA

Target Compounds

Target Compound	Internal Standard
PFHxA	13C2-PFOA
PFHpA	
PFOA	
PFNA	
PFDA	
PFUnDA	
PFDoDA	
PFTTrDA	
PFTeDA	
HFPODA	
DONA	
PFBS	13C4-PFOS
PFHxS	
PFOS	
9Cl-PF3ONS	
11Cl-PF3OUdS	
NMeFOSAA	d3-NMeFOSAA
NEtFOSAA	

Attachment 3

List of MRLs for Method Constituents

Compound	MRL (ng/l)
NEtFOSAA	2
NMeFOSAA	2
PFBS	2
PFDA	2
PFDaDA	2
PFHpA	2
PFHxA	2
PFHxS	2
PFNA	2
PFOA	2
PFOS	2
PFTeDA	2
PFTTrDA	2
PFUnDA	2
HFPODA	2
DONA	2
9CI-PF3ONS	2
11CI-PF3OUdS	2

Attachment 4

Single compound Ampulated solutions (natives)

Analyte (Wellington Cat. #)	CAS No	Conc. (µg/mL)	Acronym
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	2355-31-9	50	NMeFOSAA
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	2991-50-6	50	NEtFOSAA
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	83329-89-9	47.1	11Cl-PF3OUdS
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	958445-44-8	47.1	DONA
Hexafluoropropylene oxide dimer acid (HFPODA)	13252-13-6	50	HFPODA
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	73606-19-6	46.6	9Cl-PF3ONS

NATIVE BRANCHED/LINEAR ISOMERS

Single-compound ampouled solutions

Analyte (Wellington Cat. #)	CAS No	Conc. (µg/mL)
Technical Ammonium Perfluorooctanoate (T-PFOA)	95328-99-7TG	50

Attachment 4

Mixture ampouled solutions

Native PFAS Primary Dilution Standard(PDS) Mix, Wellington Cat. #: EPA-537PDS-R1.

This 1.2 ml ampouled mix contains the following Native PFCA/PFAS compounds:

Analyte (Wellington Cat. #)	CAS No	Conc. (ng/mL)	Acronym
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)*	2991-50-6	2000	NEtFOSAA
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)*	2355-31-9	2000	NMeFOSAA
Potassium perfluoro-1-butanesulfonate (PFBS)	375-73-5	1770	PFBS
Perfluoro-n-decanoic acid (PFDA)	335-76-2	2000	PFDA
Perfluoro-n-dodecanoic acid (PFDoDA)	307-55-1	2000	PFDoDA
Perfluoro-n-heptanoic acid (PFHPA)	375-85-9	2000	PFHpA
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	2000	PFHxA
Sodium perfluoro-1-hexanesulfonate (PFHxS)*	355-46-4	1824	PFHxS
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	2000	PFNA
Perfluoro-n-octanoic acid (PFOA)	335-67-1	2000	PFOA
Sodium perfluoro-1-octanesulfonate (PFOS)*	1763-23-1	1851	PFOS
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	2000	PFTeDA
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	2000	PFTrDA
Perfluoro-n-undecanoic acid (PFUnDA)	2058-94-8	2000	PFUnDA
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	83329-89-9	1860	11Cl-PF3OUdS
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	958445-44-8	1890	DONA
Hexafluoropropylene oxide dimer acid (HFPODA)	13252-13-6	2000	HFPODA
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	73606-19-6	1860	9Cl-PF3ONS

*Note: NEtFOSAA, NMEFOSAA, PFHxS, and PFOS concentration includes the branched and linear isomers.

Attachment 4

MASS-LABELED SURROGATE STOCKS

Single-compound ampoulated solutions

Analyte (Wellington Cat. #)	CAS No	Conc. (µg/mL)	Acronym
Perfluoro-n-[1,2-13C2]decanoic acid (MPFDA)	335-76-2L	50	13C2-PFDA
N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (d5-N-EtFOSAA)	2991-50-6L	50	d5-NEtFOSAA
Perfluoro-n-[1,2,3,4,6-13C5]hexanoic acid (MPFHxA)	307-24-4L	50	13C2-PFHxA
2,3,3,3,-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-13C3-propanoic Acid (M3HFPO-DA)	13252-13-6LC3	50	13C3-HFPODA

MASS-LABELED INTERNAL STANDARD STOCKS

Single-compound ampoulated solutions

Analyte (Wellington Cat. #)	CAS No	Conc. (µg/mL)	Acronym
N-methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (d3-N-MeFOSAA)	2355-31-9L	50	d3-NMeFOSAA
Sodium perfluoro-1-[1,2,3,4-13C4]-octanesulfonate (MPFOS)	1763-23-1L	50	13C8-PFOS
Perfluoro-n-[1,2-13C2]octanoic acid (M2PFOA)	335-67-1L	50	13C8-PFOA

Attachment 4

NATIVE PERFLUOROALKYLCARBOXYLIC ACIDS

(Used for preparation of Initial Calibration Verification (ICV) standard)

Wellington Cat. #: PFC-MXA 1.2ml

Analytes in Wellington Cat #: PFC-MXA(1.2ml)	CAS No	Conc. (ug/mL)	Acronym
Perfluoro-n-hexanoic acid	307-24-4	2	PFHxA
Perfluoro-n-heptanoic acid	375-85-9	2	PFHpA
Perfluoro-n-octanoic acid	335-67-1	2	PFOA
Perfluoro-n-nonanoic acid	375-95-1	2	PFNA
Perfluoro-n-decanoic acid	335-76-2	2	PFDA
Perfluoro-n-undecanoic acid	2058-94-8	2	PFUnDA
Perfluoro-n-dodecanoic acid	307-55-1	2	PFDoDA
Perfluoro-n-tridecanoic acid	72629-94-8	2	PFTTrDA
Perfluoro-n-tetradecanoic acid	376-06-7	2	PFTeDA
Perfluoro-n-butanoic acid	375-22-4	2	PFBA
Perfluoro-n-pentanoic acid	2706-90-3	2	PFPeA

NATIVE PERFLUOROALKYLSULFONATES

(Used for preparation of Initial Calibration Verification (ICV) standard)

Wellington Cat. #: PFS-MXA 1.2 ml

Analytes in Wellington Cat. # PFS-MXA (1.2 ml)	CAS No	Conc. (ug/mL)	Acronym
Potassium perfluoro-1-butanesulfonate	375-73-5	1.77	PFBS
Sodium perfluoro-1-hexanesulfonate	355-46-4	1.89	PFHxS
Sodium perfluoro-1-octanesulfonate	1763-23-1	1.91	PFOS

Attachment 5

Intermediate solutions

537 Drinking water Intermediate (DW-AB_PDSL_)

1. Using a calibrated syringe or an autopipette with a PP tip, add add 1.8 ml 96% methanol/water to a 4ml polypropylene (PP) bottle.
2. Using a calibrated syringe or an autopipette with a PP tip, add 0.2 ml (200ul) of 537_DW-B_High (see Attachment 7) to the PP bottle.
3. Invert several times to mix.
4. Vortex to mix thoroughly. Store at room temperature. Stable for 6 months unless degradation is observed.

Analyte	CAS No	Conc. (ppb)
N-ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)*	2991-50-6	50
N-methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)*	2355-31-9	50
Potassium perfluoro-1-butanefulfonic acid (PFBS)	375-73-5	44.25
Perfluoro-n-decanoic acid (PFDA)	335-76-2	50
Perfluoro-n-dodecanoic acid (PFDoDA)	307-55-1	50
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	50
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	50
Sodium perfluoro-1-hexansulfonic acid(PFHxS)*	355-46-4	45.6
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	50
Perfluoro-n-octanoic acid (PFOA)	335-67-1	50
Sodium perfluoro-1-octanesulfonic acid (PFOS)*	1763-23-1	46.28
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	50
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	50
Perfluoro-n-undecanoic acid (PFUnDA)	2058-94-8	50
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	763051-92-9	46.5
4,8-dioxa-3H-perfluorononanoic acid (DONA)	919005-14-4	47.25
Hexafluoropropylene oxide dimer acid (HFPODA)	13252-13-6	50

Attachment 5

Analyte	CAS No	Conc. (ppb)
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	73606-19-6	46.5

*Note: NEtFOSAA, NMeFOSAA, PFHxS, and PFOS concentrations includes the branched and linear isomers.

537 Drinking Waters Linear Branched PFOA Intermediate (537_DW_B_TI)

1. Using a calibrated syringe or an autopipette with a PP tip, add 1.98 ml of 96% methanol/water to a 4 ml polypropylene (PP) bottle.
2. Using a calibrated syringe or an autopipette with a PP tip, add 0.02 ml (20 ul) of Technical Ammonium Perfluorooctanoate (T-PFOA) stock to the polypropylene bottle. (final volume of solutions is 2ml)
3. Mix thoroughly. Store at room temperature. Stable for 6 months unless degradation is observed.

Compound	Concentration (ppb)
T-PFOA	500

537 Drinking Water ICV intermediate A (537_DW-B_ICVI_)

1. Using a calibrated syringe or an autopipette with a PP tip, add 0.44 ml of 96% methanol/water to 4 ml polypropylene (PP) bottle. Using a calibrated syringe or an autopipette with a PP tip, add the following solutions to the same bottle.

Stock Solution	Volume (ml)
11CI-PF3OUdS stock	0.01
9CI-PF3ONS stock	0.01
DONA stock	0.01
HFPODA stock	0.01
NEtFOSAA stock	0.01
NMeFOSAA stock	0.01
PFC-MXA	0.25
PFS-MXA	0.25

Attachment 5

2. Invert several times to mix.
3. Vortex to mix thoroughly. Store at room temperature. Stable for 6 months unless degradation is observed.

Compound	Concentration (ppb) in intermediate standard
NEtFOSAA	500
NMeFOSAA	500
PFBS	442.25
PFDA	500
PFDODA	500
PFHpA	500
PFHxA	500
PFHxS	472.75
PFNA	500
PFOA	500
PFOS	478
PFTeDA	500
PFTTrDA	500
PFUnDA	500
11CI-PF3OUdS	471
9CI-PF3ONS	466
DONA	471
HFPODA	500

Attachment 6

Working initial calibration standards

All standards are prepared using calibrated syringes or an autopipette with a PP tip. All standards are prepared in 4 ml polypropylene (PP) bottles using 96% methanol/water. Final volume(s) for all /each standard(s) is 2 ml.

A. Calibration Standards-Volumes

Solution	Calibration Standards - Volumes (mL)					
	MDL	CAL1	CAL2	CAL3	CAL4	CAL5
537 Drinking water intermediate	0.005	0.02	0.04	NA	NA	NA
537_DW-B_High	NA	NA	NA	0.01	0.02	0.08
Surrogate (537_DW-B_SUR_)	0.02	0.02	0.02	0.02	0.02	0.02
Internal Standard (537_DW-B_IS_)	0.02	0.02	0.02	0.02	0.02	0.02
96% methanol/water	1.955	1.94	1.92	1.95	1.94	1.88

B. Calibration Standards-Concentrations

Compound	Calibration Standards – Concentrations (ppb)					
	MDL	CAL1	CAL2	CAL3	CAL4	CAL5
NEtFOSAA	0.125	0.5	1	2.5	5	20
NMeFOSAA	0.125	0.5	1	2.5	5	20
PFBS	0.111	0.443	0.885	2.21	4.42	17.7
PFDA	0.125	0.5	1	2.5	5	20
PFDODA	0.125	0.5	1	2.5	5	20

Attachment 6

Compound	Calibration Standards – Concentrations (ppb)					
	MDL	CAL1	CAL2	CAL3	CAL4	CAL5
PFHpA	0.125	0.5	1	2.5	5	20
PFHxA	0.125	0.5	1	2.5	5	20
PFHxS	0.114	0.456	0.912	2.28	4.56	18.24
PFNA	0.125	0.5	1	2.5	5	20
PFOA	0.125	0.5	1	2.5	5	20
PFOS	0.116	0.463	0.926	2.31	4.63	18.51
PFTeDA	0.125	0.5	1	2.5	5	20
PFTTrDA	0.125	0.5	1	2.5	5	20
PFUnDA	0.125	0.5	1	2.5	5	20
11Cl-PF3OUdS	0.116	0.465	0.93	2.325	4.65	18.6
DONA	0.118	0.4725	0.945	2.363	4.725	18.9
HFPODA	0.125	0.5	1	2.5	5	20
9Cl-PF3ONS	0.116	0.465	0.93	2.325	4.65	18.6
13C2-PFDA	10	10	10	10	10	10
13C2-PFHxA	10	10	10	10	10	10
d5-NEtFOSAA	40	40	40	40	40	40
13C2-PFOA	10	10	10	10	10	10
13C4-PFOS	28.68	28.68	28.68	28.68	28.68	28.68
d3-NMeFOSAA	40	40	40	40	40	40

Attachment 6

C. Linear and Branched Standard (537_DW-B_LB_) – Volumes

Solution	Linear and Branched Standard Volumes (mL)
537 Drinking water Linear and Branched PFOA intermediate (537_DW-B_TI_)	0.01
Surrogate (537_DW-B_SUR_)	0.02
Internal Standard (537_DW-B_IS_)	0.02
96% methanol/water	1.95

D. Linear and Branched Standard – concentrations

Compound	Concentration (ppb)
13C2-PFDA	10
13C2-PFHxA	10
d5-NEtFOSAA	40
13C2-PFOA	10
13C4-PFOS	28.68
d3-NMeFOSAA	40
T-PFOA	2.5
13C3-HFPODA	10

Attachment 6

E. ICV(537_DW-B_ICV_) - Volumes

Solution	ICV Volumes (mL)
537 drinking water ICV intermediate B (537_DW-B_ICV_)	0.01
Surrogate (537_DW-B_SUR_)	0.02
Internal Standard (537_DW-B_IS_)	0.02
96% methanol/water	1.95

F. ICV- Concentrations

Compound	Concentration (ppb)
NEtFOSAA	2.5
NMeFOSAA	2.5
PFBS	2.21
PFDA	2.5
PFDaDA	2.5
PFHpA	2.5
PFHxA	2.5
PFHxS	2.36
PFNA	2.5
PFOA	2.5
PFOS	2.39
PFTeDA	2.5
PFTTrDA	2.5

Attachment 6

Compound	Concentration (ppb)
PFUnDA	2.5
11Cl-PF3OUdS	2.355
9Cl-PF3ONS	2.33
DONA	2.355
HFPODA	2.5
13C2-PFDA	2.5
13C2-PFHxA	2.5
d5-NEtFOSAA	40
13C2-PFOA	10
13C4-PFOS	28.68
d3-NMeFOSAA	40

Attachment 7

Preparation of Working Native Spike Solution (for spiked batch QC; LFB/LFBD; LFSM/LFSMD)

Working Native Spike Solutions

These are prepared using the Native PFAS PDS Mix (CAT # EPA-537PDS-R1).

Method requires alternating between low-, mid- and high-level spike concentrations for Native compounds.

A. Low-Level Native Spike (537_DW-B_LOW_):

- 1) Using a calibrated syringe or an autopipette with a PP tip, add 1.976 ml of 96% methanol/water to a 4 mL polypropylene(PP) vial with a screw cap.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add 0.024 ml Native PFAS PDS Mix to the PP container.
- 3) Invert several times to mix.
- 4) Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Compound	Concentration (ppb)
PFOA	24
PFNA	24
PFDA	24
PFUnDA	24
PFD _o DA	24
PFT _r DA	24

Attachment 7

Compound	Concentration (ppb)
PFOA	24
PFNA	24
PFDA	24
PFTeDA	24
PFHxA	24
PFHpA	24
PFBS	21.24
PFHxS	21.89
PFOS	22.21
NEtFOSAA	24
11CI-PF3OUdS	22.32
9CI-PF3ONS	22.32
DONA	22.68
HFPODA	24
NMeFOSAA	24

B. Mid-Level Native Spike (537_DW-B_MID_):

- 1) Using a calibrated syringe or an autopipette with a PP tip, add 2.808 ml of 96% methanol/water to a 4 mL polypropylene(PP) vial with a screw cap.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add 0.192 ml Native PFAS PDS Mix to the PP container.

Attachment 7

- 3) Invert several times to mix.
- 4) Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Compound	Concentration (ppb)
PFOA	128
PFNA	128
PFDA	128
PFUnDA	128
PFDoDA	128
PFTTrDA	128
PFTeDA	128
PFHxA	128
PFHpA	128
PFBS	113.28
PFHxS	116.74
PFOS	118.46
NEtFOSAA	128
11Cl-PF3OUdS	119.04
9Cl-PF3ONS	119.04
DONA	120.96
HFPODA	128
NMeFOSAA	128

C. High-Level Native Spike (537_DW-B_High_):

- 1) Using a calibrated syringe or an autopipette with a PP tip, add 1.5 ml of 96% methanol/water to a 4 mL polypropylene(PP) vial with a screw cap.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add 0.5 ml Native PFAS PDS Mix to the PP container.
- 3) Invert several times to mix.
- 4) Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Attachment 7

Compound	Concentration (ppb)
PFOA	500
PFNA	500
PFDA	500
PFUnDA	500
PFDoDA	500
PFTTrDA	500
PFTeDA	500
PFHxA	500
PFHpA	500
PFBS	442.5
PFHxS	456
PFOS	462.75
NEtFOSAA	500
11Cl-PF3OUdS	465
9Cl-PF3ONS	465
DONA	472.5
HFPODA	500
NMeFOSAA	500

Attachment 7

Preparation of Intermediate Mass-Labeled Surrogate Spike Solution (537_DW-B_SUR_).

- 1) Using a PP transfer pipette, add approximately 5-6ml 96% methanol/water to a 10ml Class A polypropylene (PP) volumetric flask.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add the following aliquots of the stocks listed in the table below to the flask.

Compound	Aliquot of Stock (ml)	Concentration (ppb)
d5-NEtFOSAA	0.8	4000
13C2-PFHxA	0.2	1000
13C2-PFDA	0.2	1000
13C3-HFPODA	0.2	1000

- 3) Bring the flask to volume using 96% methanol/water. Invert several times to mix.
- 4) Transfer to a labeled 15 mL polypropylene centrifuge tube with a screw cap. Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Preparation of Working Mass-Labeled Surrogate Spike Solution (537_DW-B_SURL_).

This solution is added to all samples and batch QC; LFB/LFBD; LFSM/LFSMD.

- 1) Using a PP transfer pipette, add approximately 50-60ml 96% methanol/water to a 100ml Class A volumetric flask.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add 1 mL of Intermediate Mass-Labeled Surrogate Spike Solution (537_SW-B_SUR_) to the flask.
- 3) Bring the flask to volume using 96% methanol/water. Invert several times to mix.
- 4) Transfer to a labeled 125 mL polypropylene bottle. Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Attachment 7

Compound	Concentration (ppb)
d5-NEtFOSAA	40
13C2-PFHxA	10
13C2-PFDA	10
13C3-HFPODA	10

Preparation of Intermediate Internal Standard Spike (537_DW-B_IS_):

- 1) Using a PP transfer pipette, add approximately 5-6ml 96% methanol/water to a 10ml Class A PP volumetric flask.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add the following aliquots of the stocks listed in the table below to the flask.

Compound	Aliquot of Stock (ml)	Concentration (ppb)
d3-NMeFOSAA	0.8	4000
13C2-PFOA	0.2	1000
13C4-PFOS	0.6	2868

- 3) Bring the flask to volume using 96% methanol/water. Invert several times to mix.
- 4) Transfer to a labeled 15 mL polypropylene centrifuge tube with a screw cap. Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Preparation of Working Internal Standard Spike (537_DW-B_ISL_):

This solution is added to all extracts prior to analysis/injection on the LC/MS/MS system.

Attachment 7

- 1) Using a PP transfer pipette, add approximately 50-60ml 96% methanol/water to a 100ml Class A volumetric flask.
- 2) Using a calibrated syringe or an autopipette with a PP tip, add 1 mL of Intermediate Internal Standard Spike(537_DW-B_IS_) to the flask.
- 3) Bring the flask to volume using 96% methanol/water. Invert several times to mix.
- 4) Transfer to a labeled 125 mL polypropylene bottle. Vortex to thoroughly mix. Store at room temperature. Stable for 2 months unless degradation is observed.

Compound	Concentration (ppb)
d3-NMeFOSAA	4000
13C2-PFOA	1000
13C4-PFOS	2868

5/6/2021


WELLINGTON
LABORATORIES
CERTIFICATE OF ANALYSIS
DOCUMENTATION
EPA-537PDS-R1

410-1337460

Native PFAS Primary Dilution
Standard Solution/Mixture

410-1484801

PRODUCT CODE:

EPA-537PDS-R1

LOT NUMBER:

537PDSR10119

SOLVENT(S):

Methanol/ Water (<1%)

DATE PREPARED: (mm/dd/yyyy)

02/14/2019

LAST TESTED: (mm/dd/yyyy)

02/10/2021

EXPIRY DATE: (mm/dd/yyyy)

02/10/2024

RECOMMENDED STORAGE:

Refrigerate ampoule

DESCRIPTION:

410-1346475

EPA-537PDS-R1 is a solution/mixture of native linear perfluoroalkylcarboxylic acids (PFCAs; C₈-C₁₁), native perfluoroalkylsulfonates (PFASs; C₈ linear; C₈ and C₉ linear and branched), native N-substituted perfluoro-octanesulfonamidoacetic acids (N-MeFOSAA and N-EtFOSAA; linear and branched), GenX (HFPO-DA), the main components of F-53B (9Cl-PF3ONS and 11Cl-PF3OUdS), and the sodium salt of ADONA (NaDONA). The components and their concentrations are given in Table A.

The components of this solution/mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
 Table B: Isomeric Components and Percent Composition of N-MeFOSAA
 Table C: Isomeric Components and Percent Composition of N-EtFOSAA
 Table D: Isomeric Components and Percent Composition of PFHxSK
 Table E: Isomeric Components and Percent Composition of PFOSK
 Figure 1: LC/MS Data (SIR)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

See page 2 for further details.

Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Attachment 8

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS/ CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n \left(\frac{\partial y}{\partial x_i} u(x_i) \right)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Attachment 8

Table A: EPA-537PDS-R1; Components and Concentrations ($\pm 5\%$ in methanol/water ($<1\%$))

Compound	Acronym	Concentration* (ng/ml)	Peak Assignment in Figure 1	
Perfluoro-n-hexanoic acid	PFHxA	2000	B	
Perfluoro-n-heptanoic acid	PFHpA	2000	D	
Perfluoro-n-octanoic acid	PFOA	2000	H	
Perfluoro-n-nonanoic acid	PFNA	2000	I	
Perfluoro-n-decanoic acid	PFDA	2000	M	
Perfluoro-n-undecanoic acid	PFUdA	2000	R	
Perfluoro-n-dodecanoic acid	PFDaA	2000	T	
Perfluoro-n-tridecanoic acid	PFTTrDA	2000	U	
Perfluoro-n-tetradecanoic acid	PFTeDA	2000	V	
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000	C	
N-methylperfluorooctanesulfonamidoacetic acid ^a	N-MeFOSM: linear isomer	1520	O	
	N-MeFOSM: I: branched isomers	480	N	
N-ethylperfluorooctanesulfonamidoacetic acid ^b	N-EtFOSAA: linear isomer	1550	Q	
	N-EtFOSAA: I: branched isomers	450	P	
Compound	Acronym	Concentration* (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro-1-butanedisulfonate	L-PFBS	2000	1770	A
Potassium perfluorohexanesulfonate ^c	PFHxSK: linear isomer	1620	1480	G
	PFHxSK: I: branched isomers	378	345	F
Potassium perfluorooctanesulfonate ^d	PFOSK: linear isomer	1580	1460	K
	PFOSK: I: branched isomers	422	392	J
Sodium dodecafluoro-3H-4,8-dioxanonanoate	NaDONA	2000	1890	E
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	9CI-PF30NS	2000	1870	L
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate	11CI-PF30UdS	2000	1890	S

* Concentrations have been rounded to three significant figures.

^a See Table B for percent composition of linear and branched N-MeFOSAA isomers.

^b See Table C for percent composition of linear and branched N-EtFOSAA isomers.

^c See Table D for percent composition of linear and branched PFHxSK isomers.

^d See Table E for percent composition of linear and branched PFOSK isomers.

Table B: N-MeFOSAA; Isomeric Components and Percent Composition (by ^{19}F -NMR)*

Isomer	Compound	Structure	Percent Composition by ^{19}F -NMR	
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	76.0	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	0.7	24.0
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	2.0	
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	6.0	
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	14.0	
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\text{CF}_3\text{C}(\text{CF}_3)_2(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	0.2	
7	Other Unidentified Isomers		1.1	

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Table C: N-EtFOSAA; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Compound	Structure	Percent Composition by ¹⁹ F-NMR	
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \\ \text{C}_2\text{H}_5 \end{array}$	77.5	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	2.3	22.5
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	2.2	
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	5.4	
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{CH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	10.4	
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_3)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{array}$	0.3	
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	0.3	
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \qquad \qquad \\ \text{CF}_3 \qquad \qquad \text{C}_2\text{H}_5 \end{array}$	0.3	
9	Other Unidentified Isomers		1.3	

* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Table D: PFHxSK; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Compound	Structure	Percent Composition by ¹⁹ F-NMR	
1	Potassium perfluoro-1-hexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ -K ⁺	81.1	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CFSO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array}$	2.9	18.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CFCF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array}$	1.4	
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array}$	5.0	
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array}$	8.9	
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array}$	0.2	
7	Other Unidentified Isomers		0.5	

* Percent of total perfluorohexanesulfonate isomers only.

** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Attachment 8

Table E: PFOSK; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

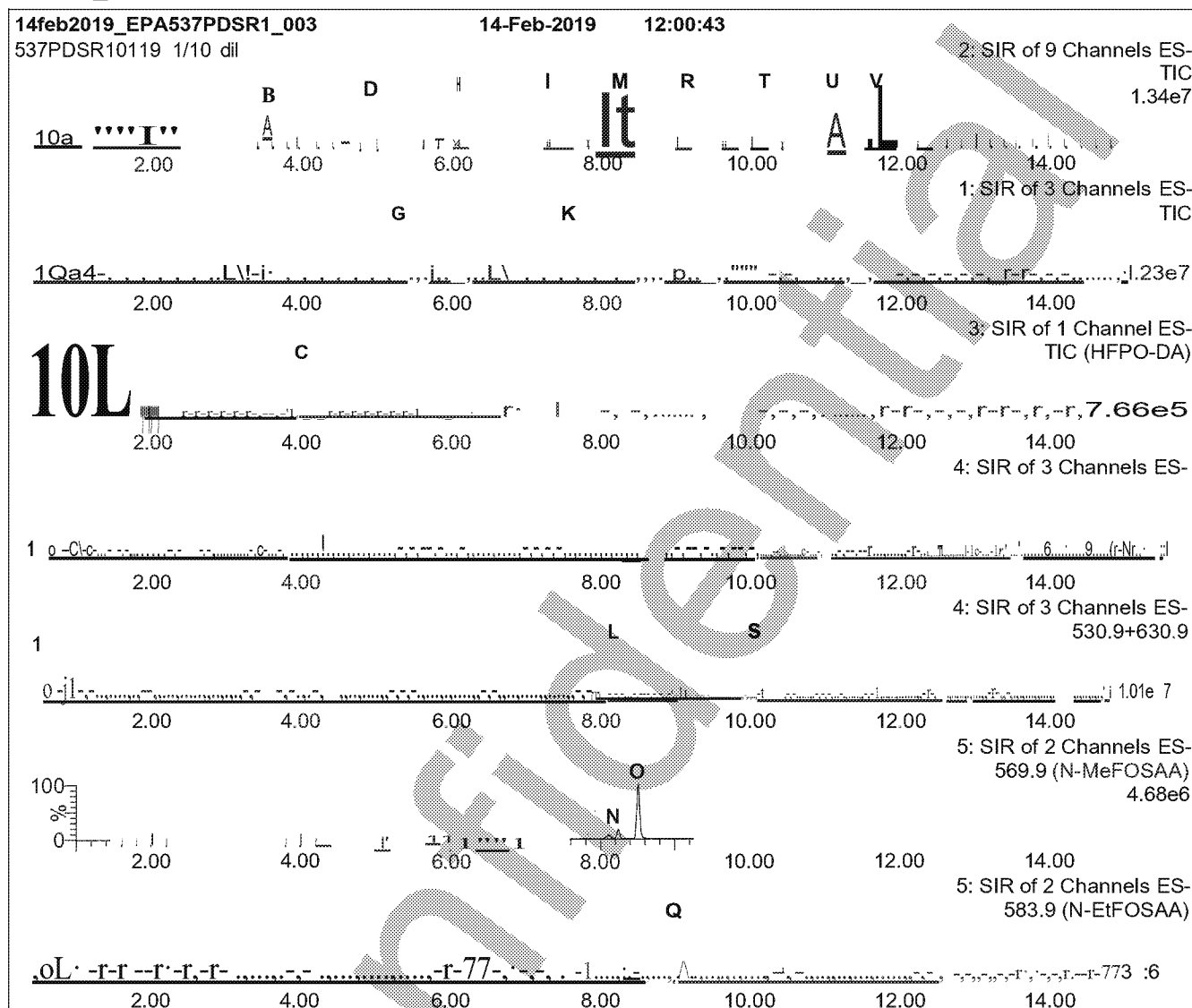
Isomer	Compound	Structure	Percent Composition by ¹⁹ F-NMR	
1	Potassium perfluoro-1-octanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ -K ⁺	78.8	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$ \begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	1.2	21.1
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$ \begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	0.6	
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$ \begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	1.9	
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$ \begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	2.2	
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$ \begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	4.5	
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$ \begin{array}{c} \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	10.0	
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$ \begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	0.2	
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$ \begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}_2\text{CCF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	0.03	
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$ \begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	0.4	
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$ \begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{SO}_3\text{-K}^+ \\ \\ \text{CF}_3 \end{array} $	0.07	

* Percent of total perfluorooctanesulfonate isomers only.

** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____
B.G. Chittim, General Manager

Date: 02/11/2021
(mm/dd/yyyy)

Figure 1: EPA-537PDS-R1; LC/MS Data (SIR)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% H₂O / 40% (80:20 MeOH:ACN)
(both with 10 mM NHpAc buffer)
Ramp to 70% organic over 7 min then ramp to 90%
organic over 4.5 min and hold for 1.5 min before returning
to initial conditions in 0.5 min.
Time: 15 min

Flow: 300 μ L/min

MS Parameters:

Experiment: SIR

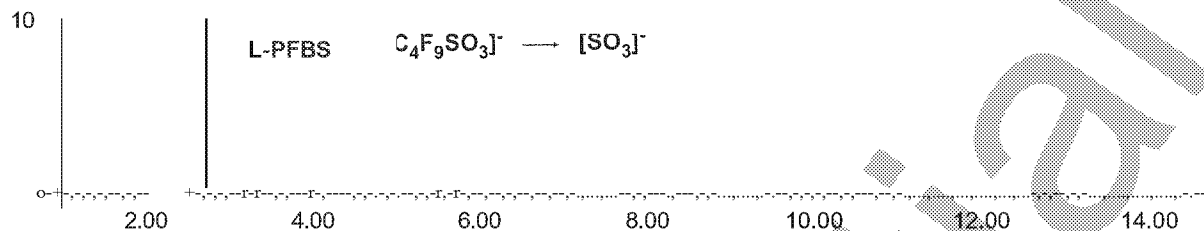
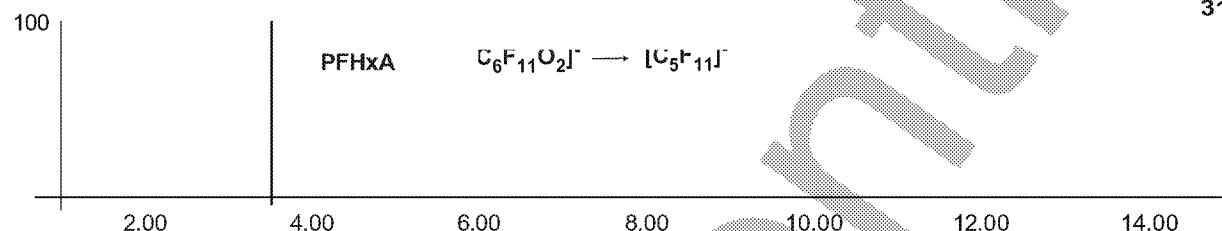
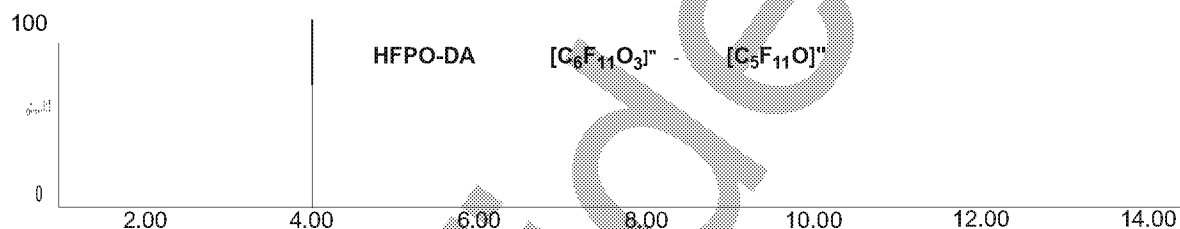
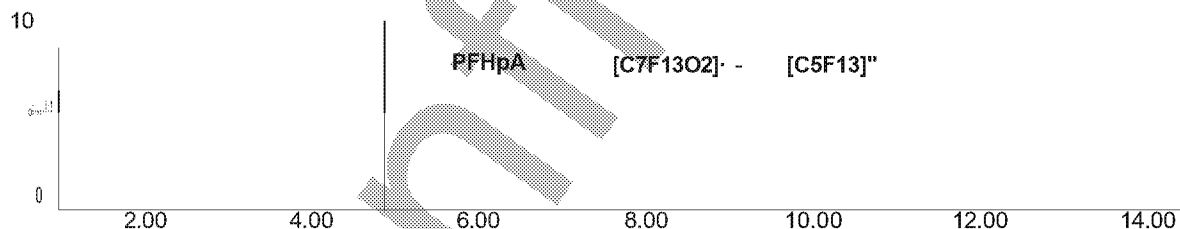
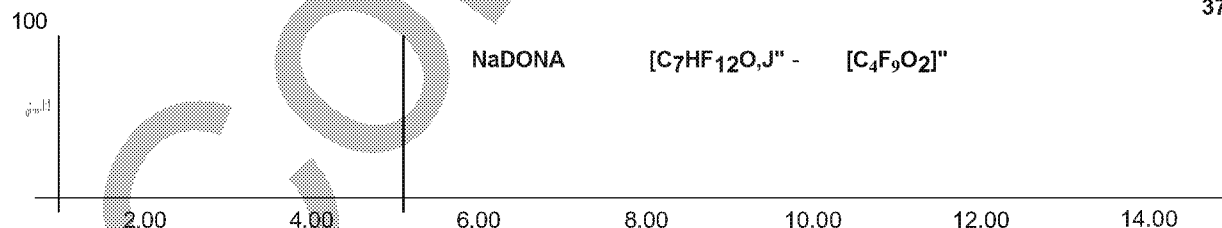
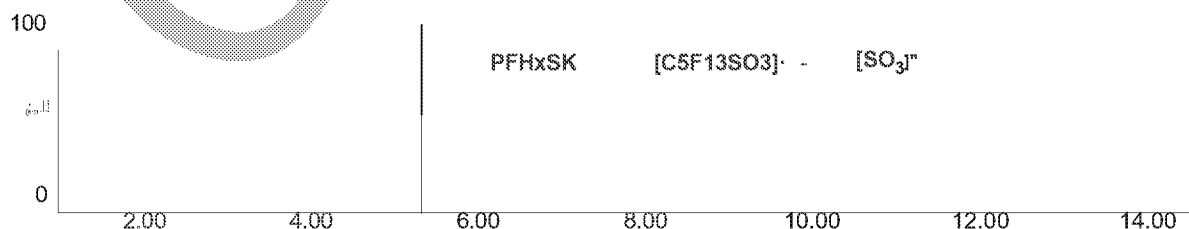
Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = Variable (2-74)
Desolvation Temperature ($^{\circ}$ C) = 325
Desolvation Gas Flow (L/hr) = 1000

Figure 2: EPA-537PDS-R1; LC/MS/MS Data (Selected MRM Transitions)

14feb2019_EPA537PDSR1_004

14-Feb-2019 12:16:41

537PDSR101191/10.dil

299 > 80
7.84e5313 > 269
3.33e6329 > 285
2.66e4363 > 319
4.56e6377 > 251
6.46e6399 > 80
1.11e6

Time

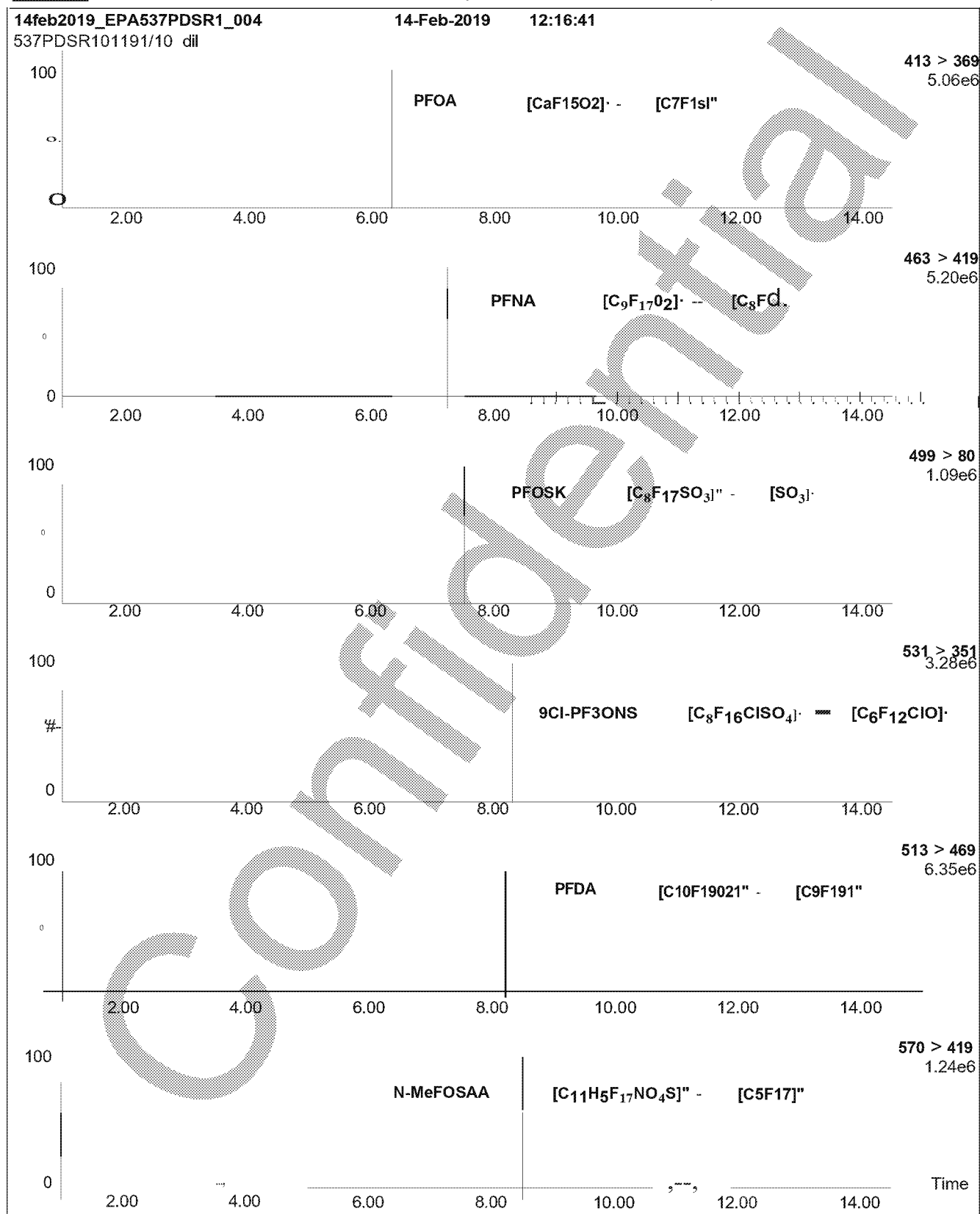
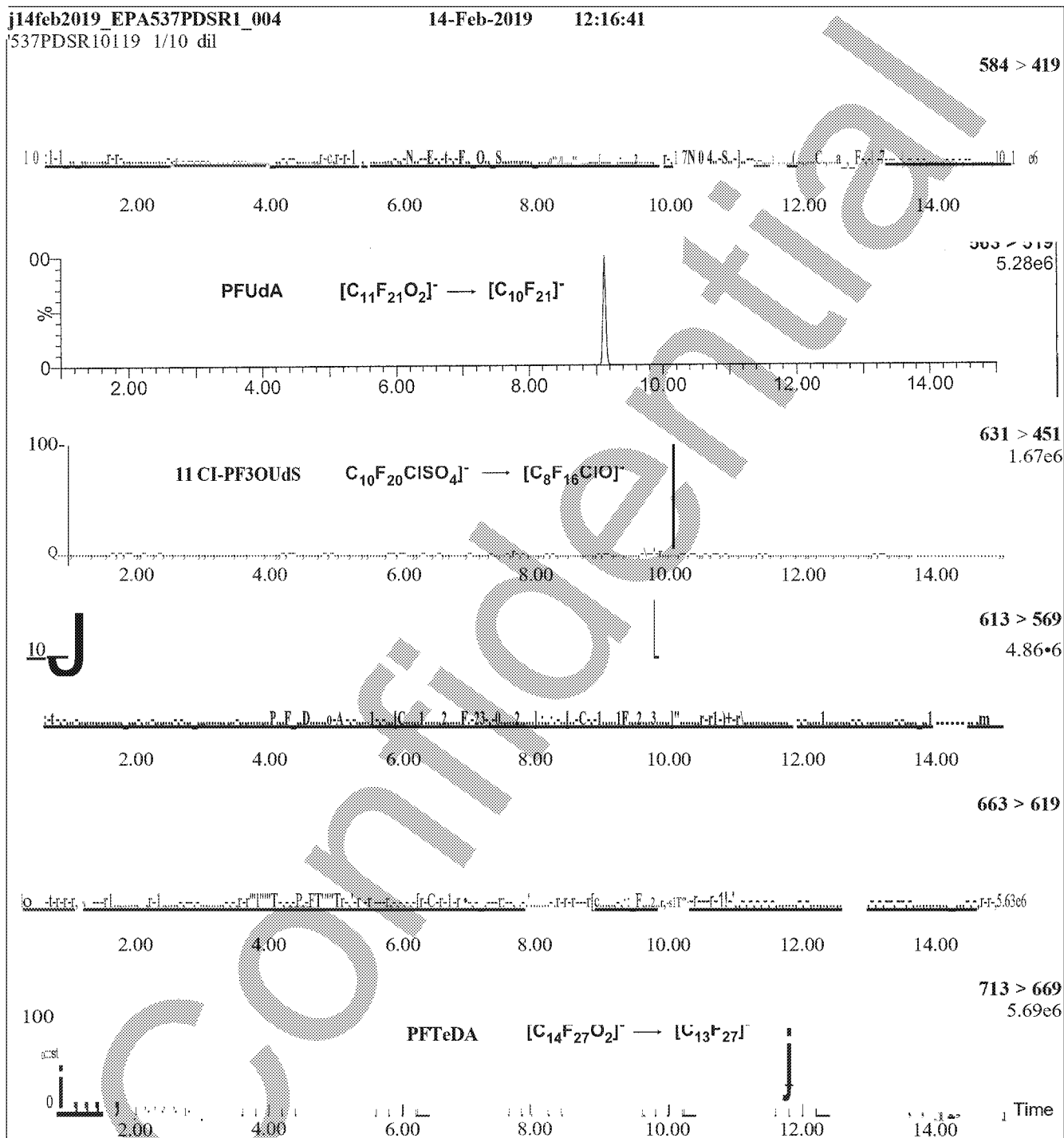
Figure 2: EPA-537PDS-R1; LC/MS/MS Data (Selected MRM Transitions)

Figure 2: EPA-537PDS-R1; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: On-column (EPA-537PDS-R1)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min

MS Parameters:

Collision Gas (mbar) = 2.90e-3

Collision Energy (eV) = 4-64 (variable)

Confidential

QAPP
ATTACHMENT C

Phone (717) 656-2300

Environment Testing
America

Ver: 01/16/2019

Order #

☐

Composite

☐

Grab

☐

Filtered

Date

Time

By

ELLE LL#

Preservative: